

# *Minicam* Photography

JUNE 1948

25 CENTS

30 CENTS IN CANADA



*Inside...*



*...Outside*



ARGUS CAMERA PHOTOS



*All Around  
the Town..*



## *Argus C-3.. Your All-time Camera!*

**Pick your subject. Pick your spot.** Anytime, anywhere. You're always ready to shoot with Argus C-3. For it is the 35 mm. camera with added features that make good picture-taking easier.

Accurate, synchronized flash attachment snaps on in an instant, and you're ready for those precious indoor shots.

Precision-made, gear-controlled shutter provides speeds from 1/10 to 1/300—more than you need for normal use. Exceptionally sharp F3.5 lens coated to eliminate flare and "ghosts," corrected for finer, fuller color. Handsome carrying case keeps C-3 always handy. For the candid camera that has everything, ask your favorite dealer to show you the all-time Argus C-3 today.

• Argus Projector  
for the critical  
slide collector.



ARGUS, INCORPORATED • ANN ARBOR, MICH.

AMERICA'S FAVORITE 35 MM. FLASH CAMERA



### FILMO AUTO LOAD CAMERA

The only 16mm magazine-loading camera with all these features: lifetime guarantee; sealed-in lubrication — no oiling; positive-type viewfinder; built-in lens-setting guide for all films, all outdoor conditions. (At left in illustration.)

### FILMO SPORTSTER CAMERA

The only spool-loading 8mm camera with all these features: lifetime guarantee; "drop-in" loading with no sprockets to thread, and an automatic film gate; provisions for true slow motion pictures and for animation work. (At right in illustration.)



## FOR *Color Movies* WITH THE HOLLYWOOD TOUCH...FILMO



There's a complete line of Filmo 8mm and 16mm cameras and projectors including Filmosound, the famous 16mm sound film projector. See them at better photo shops now, or write for literature to Bell & Howell Company, 7163 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D.C., London.

.....

You've admired the beautiful photography in theater movies. Wouldn't you like that Hollywood touch in your *personal* movies?

You can have it, if when you buy you'll remember that the finest movies are made with the finest camera. The finest camera? A Filmo, built by Bell & Howell, makers of the professional equipment Hollywood has preferred for 41 years.

On your travels and at home, you'll seldom have a second try at the finest picture opportunities. But Bell & Howell's Hollywood standards mean that with a Filmo camera you don't take a chance — you take a *movie*!

*All Filmo cameras are guaranteed for life*

Precision-Made by

# Bell & Howell

Since 1907 the Largest Manufacturer of Professional Motion Picture  
Equipment for Hollywood and the World

# Minicam Photography

HOME EDITORIAL AND BUSINESS OFFICES  
22 EAST 12TH STREET, CINCINNATI 10, OHIO

GEORGE R. HOXIE, A.P.S.A. .... Editor  
ARVEL W. AHLERS ..... Managing Editor  
MILTON G. HERBERT ..... Associate Editor  
MAY SULLIVAN ..... Editorial Secretary  
ROBERT T. HAYES ..... Art Director  
WILLIAM D. ZAEN ..... Production Director  
J. W. PACE ..... Circulation Director  
ARON M. MATHIEU ..... Business Manager

## Contributing Editors:

EARL THEISEN • ALAN FONTAINE  
JOE MUNROE • HERBERT BEARL  
KARL A. BAUMGAERTEL, A.P.S.A.  
AXEL BAHNSEN, A.P.S.A., F.R.P.S.

## CONTENTS, JUNE, 1948

### Articles

|   |                          |
|---|--------------------------|
| MINICAM COVER CONTEST ANNOUNCEMENT.....     | 29                       |
| EXPOSURE AND WHAT IT MEANS.....             | Milton G. Herbert 30     |
| OUTDOOR COLOR PHOTOGRAPHY WITH FILTERS..... | Seymour S. Miller 48     |
| SYNCHRO-SUNLIGHT.....                       | Earl Theisen 52          |
| PLASTIC SHIELDS FOR FLASH REFLECTORS.....   | Jack Wilson 58           |
| PICTURE SECTION.....                        | 65                       |
| OTTO BETTMANN.....                          | Jhan and June Robbins 78 |
| A CRITICAL LENS TEST.....                   | Eugene M. Hanson 84      |

### Movie Features

|                          |                  |
|--------------------------|------------------|
| COWBOYS AND INDIANS..... | Edison Thomas 42 |
| MOVIE RELEASES.....      | 108              |

### Departments

|                                    |     |
|------------------------------------|-----|
| THE LAST WORD.....                 | 6   |
| PHOTO MARKETS.....                 | 14  |
| PHOTO DATA CLIP SHEETS.....        | 88  |
| NEW PRODUCTS.....                  | 92  |
| GADGETS, KINKS AND SHORT CUTS..... | 112 |
| CAMERA CLUB NEWS AND IDEAS.....    | 124 |
| SALON CALENDAR.....                | 144 |



Cover by EDWIN C. EVANS from Shostal  
Yosemite Falls, California

Fritz Henle  
(See page 30)

MINICAM PHOTOGRAPHY (TITLE REG. U. S. PAT. OFF.) PUBLISHED AT 22 EAST 12th ST., CINCINNATI, OHIO. PUBLISHED MONTHLY BY THE AUTOMOBILE DIGEST PUBLISHING CORP. YEARLY SUBSCRIPTION, \$2.50 IN U. S. A. AND POSSESSIONS, CANADA AND COUNTRIES IN PAN-AMERICAN POSTAL UNION, \$3.00. ELSEWHERE, \$3.50. SINGLE COPIES, 75c. CANADA, 90c. EASTERN ADVERTISING OFFICE: EVERETT GELLERT, 43 PARK AVENUE, NEW YORK CITY, PHONE MU 9-2370. MIDWEST ADVERTISING OFFICE: BERNARD A. ROSENTHAL, 333 NO. MICHIGAN, CHICAGO, ILL. PHONE ANDOVER 7133-33. WEST COAST ADVERTISING OFFICE: SWAIN ASSOCIATES, 439 SOUTH WILTON PLACE, LOS ANGELES 5, CALIFORNIA, PHONE DUNKIRK 8-2248. ENTERED AS SECOND CLASS MATTER AT CINCINNATI, OHIO, U. S. A., MARCH 21, 1938, UNDER THE ACT OF MARCH 3, 1879. ESTABLISHED 1937.

FOR PICTURES THAT

*Click*  
CLICK A UNIVERSAL



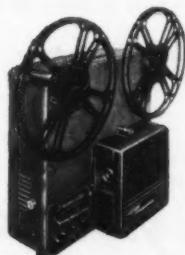
**New! UNIVERSAL'S UNIFLEX**

"The expert's reflex at an amateur's price." 17 expensive features. UNIFLEX I—Coated f4.5 viewing, f5.6 taking lens, 48.00 UNIFLEX II—Coated f3.8 viewing, f4.5 taking lens ..... 75.00



**UNIVERSAL'S BUCCANEER**

35 mm. double frame. "Super-imposed-image" Range Viewer and advanced features hitherto only on expensive imports. Coated f3.5 lens, speeds to 1/300th sec. .... 65.00



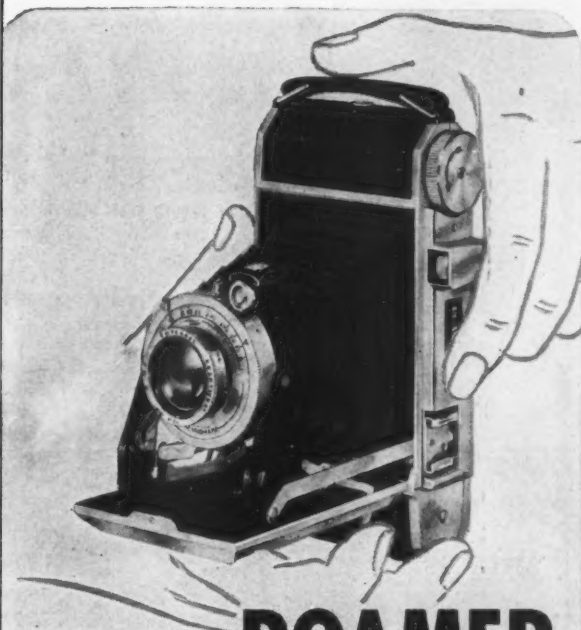
**NEW!**

**UNIVERSAL'S TONEMASTER**

Best buy in 16 mm. sound projectors; combines 24 features formerly available only at much higher prices. Full hour of movies without film change. Lightweight, portable. Priced unexpectedly low at ..... 350.00

# UNIVERSAL UNFOLDS

*...a sensation in folding cameras*



## UNIVERSAL'S ROAMER

with more "good-picture" features than any other folding camera

**T**HE more you know about cameras the sooner you'll choose Universal's Roamer. What pictures you get! Sharp, lively pictures, color or black and white. Crisp, big,  $2\frac{1}{4} \times 3\frac{1}{4}$  prints. Great pictures on either 120 or 620 film. Yet it fits your pocket or purse!

Fun? You bet. Built-in flash synchronization . . . front focusing mount . . . two view finders, waist or eye level . . . these are just a few Roamer features. So, for pictures that click, click a Universal Roamer!

ROAMER I—Coated Achromat lens (color corrected) ..... 29.75

ROAMER II (Illustrated)—Coated f4.5 Anastigmat lens . . . trigger type shutter release . . . speeds 1/25th to 1/200th and Bulb ..... 48.00

**UNIVERSAL CAMERA CORPORATION**  
NEW YORK CHICAGO HOLLYWOOD



Universal clicks with  
**Camera Dealers**

"When a customer asks us to recommend a camera, we don't hesitate to recommend a Universal Camera. You can't touch them for value or results. For pictures that click, give us a Universal every time." — Bill Winter and Jim Scarborough, Winter & Co., Los Angeles, Cal.

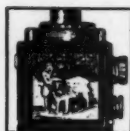
**TRADE IN YOUR OLD  
CAMERA...FOR A NEW**



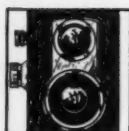
# Ciro-flex

**AMERICA'S OUTSTANDING  
VALUE IN REFLEX CAMERAS**

## 6 BIG FEATURES FOR BETTER PHOTOGRAPHY



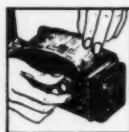
1



2



3



4



5



6

- 1 GROUND GLASS VIEWER** Reflects print-size image from life-time mirror. Viewing hood equipped with Magnifier and Sportsfinder. The picture you see is the picture you take.
- 2 TWIN SYNCHRONIZED LENSES** Fine f3.2 Wollensak Anastigmat viewing lens and 85mm f3.5 Wollensak Velostigmat taking lens. Both coated. These lenses are perfectly synchronized and controlled by automatic corrective parallax device.
- 3 LARGE ACCURATELY CALIBRATED FOCUSING KNOB** Takes uncertainty out of focusing. Marked from 3 ft. to infinity. Depth-of-Focus Chart above permits quick "zone-of-sharpness" focusing.
- 4 SIMPLE LOADING**
- 5 SPORTSFINDER** For fast action sport shots at eye level.
- 6 DEPTH-OF-FOCUS CHART** engraved on body of camera.

Takes twelve 2 1/4"x2 1/4" pictures on a roll of No. 120 film.

With Alphax Shutter. Speeds from 1/10th to 1/200th **\$76.98**

With Rapax Shutter. Speeds from 1 second to 1/400th **\$99.45**

Carrying case **\$8.50** Aluminum Twin lens metal cap **\$1.50**

On sale at your dealer or order direct from

# Willoughby's

**WORLD'S LARGEST CAMERA STORE—KNOWN THE WORLD OVER**

110 West 32nd Street • 113 West 31st Street • New York 1, N. Y.

Send for new 196 page Photo Supply Catalogue. Enclose 4c for postage.



**STURDY...**  
**BRILLIANT...**  
**NEEDLE-SHARP**



**Omega D-2**

**T**HE one enlarger that takes enlarging seriously. Brings to every negative everything the best negative deserves . . . unsurpassed sharpness, brilliancy, vibration-free steel-girder rigidity, utmost flexibility of manipulation. The only 4"x5" enlarger that permits changing condensers to match the focal length of any lens from 6 1/2" to 2", thus assuring most uniform light distribution. Accepts negatives from 4"x5" to 35mm., giving magnifications on the baseboard up to 18X. Twin-guide micrometer focusing; exclusive Dyna-Thermal draft ventilation; color head (optional) to accept filters *above the condensers*; firm-grip dustless filmholders; and many accessories for special types of work. Ask your dealer to demonstrate the D-2, or write for literature to:

**SIMMON BROTHERS, Inc.**

Long Island City 1, New York. West Coast: Western Movie Supply Co., San Francisco 8, Hollywood 38, Calif. Midwest: Hornstein Photo Sales, Inc., 320 West Ohio St., Chicago 10, Ill.

## HOW TO MAKE YOUR PHOTO-DREAMS COME TRUE

1. Camera fame comes to those who do more than dream. Success demands skilled training like JOSEPH CANCALOSI found at New York's SCHOOL OF MODERN PHOTOGRAPHY. Since photographing his model airplanes, Joe dreamed of being an ace cameraman. Now a master of commercial and portrait photography (right), he'll open his own studio—specialize in aviation photos.



By JOSEPH I. CANCALOSI



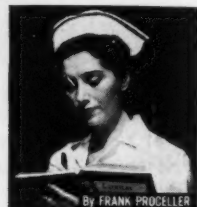
By DAVID J. FORBERT



By ELDON GREEN

3. Fogging the future for many careerists is the puzzler, "Which way success?" Of all the lush photo-careers open to SMP students, Canadian newsman ELDON GREEN chose the commercial field (see above). Now trained and polished, he faces the wider horizons he dreamed of.

2. "Hot on the trail" of last word techniques, professional DAVE FORBERT beelined for SMP from deep down in Mississippi. Besides polishing portraiture (see left), he found new photo-worlds to conquer—in studios that even camera stars dream about, but rarely see. Before you could say "SMP", Forbert pocketed a prize post as photographer for Reader's Digest—International!



By FRANK PROCELLER

4. "Dream-come-to-life" sums up the case history of FRANK PROCELLER (see above). A lifelong hobbyist, he studied evenings at SMP under crack photo-instructors. Reaching professional stature, he'll open a studio specializing in industrial and public relations photography.



**THE SCHOOL OF MODERN PHOTOGRAPHY**  
136 East 57th St. New York 22, N. Y.

5. Information Please! "What about tuition fees?" Specialized courses, day or evening, are exceptionally moderate. Visit the School, or write for outline of courses. Address H. P. Sidel, director, Dept. M6.

## THE LAST WORD

### The Cover That Fed the Kitty

Sirs:

The midget racer shot by Jack Stevens on the April cover is a pip. As soon as I saw it I beat it down to the club and won \$10 on bets about how it was made. A lot of members of our club combine midget racing with photography but no one knew how to set up a picture like that until he read the article on page 27. The \$10 winnings went into a kitty fund to buy materials to duplicate Steven's idea. Now watch our dust!

Burbank, Calif.

EDDIE ARNHOLTZ.

Sirs:

What a cover! I can't tell you how much I enjoyed Jack Steven's racing car picture on the April cover. Like Mr. Stevens, I am a midget racer fan as well as a camera hobbyist. The steam escaping from the motor really topped off this amazing picture. Where can I get a copy of it?

Chicago, Ill.

EUGENE G. WALSHON.

• Try contacting Jack Stevens at the address below. — Ed.

Sirs:

Thanks for the return of my midget racing car transparency. Having already received the check for \$100 for use of the transparency as a cover contest winner, the additional check for the article quoted from my letter came as a surprise. In fact, the whole thing has been unexpected from start to finish . . . but thanks!

205 West F. Street,  
San Diego 1, Calif.

JACK STEVENS.

• Incidentally, Jack,—and all other color shooters as well—don't overlook the announcement of the 1948 MINICAM Cover Contest on page 29 of this issue. — Ed.

### Shirt-tail Trouble

Sirs:

I like red meat in my reading and that's what I got in the *How To Improve Your Snapshot* articles in the April and May MINICAMS. But the printer or whoever it was that got his shirt-tail caught in the press on page 33 of the April issue sure messed things up. The answer part of the 5th *What's Wrong With These Snapshots* problem doesn't make sense. Was something omitted in this answer?

Parkersburg, Va.

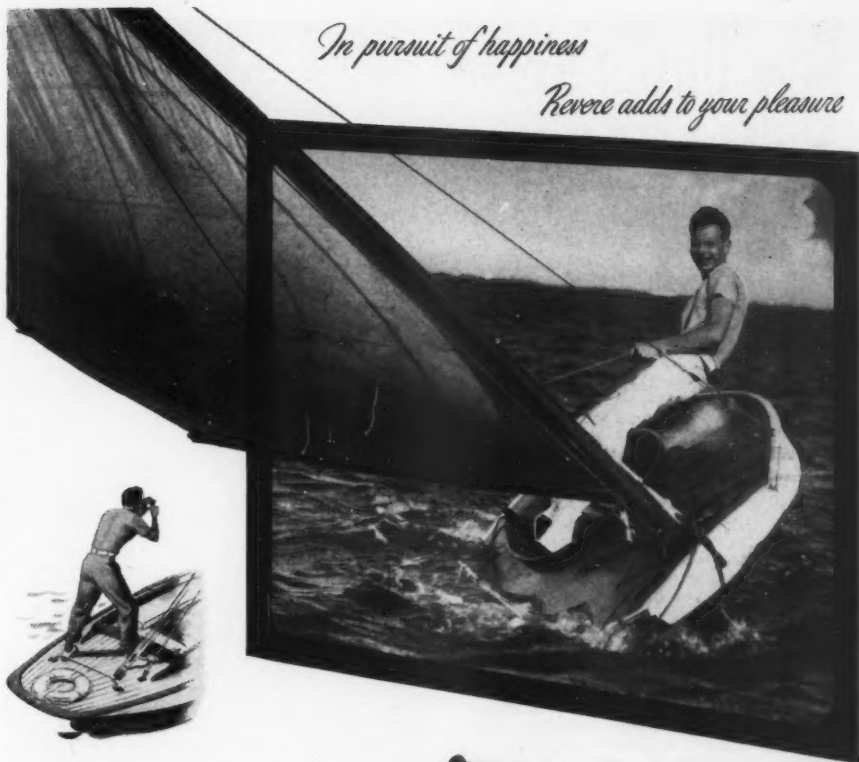
GILES MCFADDEN.

• It certainly was. The remedy part of the problem concerning camera movement should have read like this: "Never try to make a snapshot at a speed of less than 1/25th second unless your camera is mounted on a tripod or other steady support. Even at 1/25th second



*In pursuit of happiness*

*Revere adds to your pleasure*



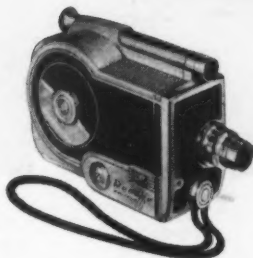
Outdoor sports are *twice the fun* when you capture their action with *movies*. In crisp black-and-white or natural colors...exactly as they happened...you'll be able to share those thrilling moments over and over again with your family and friends at home.

Taking movies is *easy* with *Revere*. And practically as inexpensive, per scene, as snapshots. There's a *Revere* movie camera to fit every need...from the simple fixed focus type to the magazine turret model that brings distant scenes into close-up focus at the twist of your wrist.

Double the pleasure of your favorite sport with *Revere* movies. See the wide selection of 8mm and 16mm movie cameras and projectors at your *Revere* dealer.

REVERE CAMERA COMPANY, CHICAGO 16

**Revere**  
EIGHTS and SIXTEENS



**REVERE 16MM MAGAZINE CAMERA**

Easiest type to load. Has built-in Micromatic telescopic view-finder... continuous run... five-speeds... built-in film rating guide and exposure chart... footage indicator... ratchet winding key... single frame exposure. F 2.5 Wol-lensak coated lens.

Including tax, \$127.50  
Revere "70" 8mm Magazine Camera. F 2.8 Coated Lens.  
Tax incl. \$127.50



**REVERE "85" 8MM PROJECTOR**

Extremely easy to thread and operate. Automatic re-wind (no belts)... 500-watt illumination... Fast 1-inch coated lens... Complete with 300-foot reel.

\$120.00

of a rotating turret head that makes three coated lenses instantly available for regular and telephoto shots. With F 2.8 Coated Lens.

Including tax, \$110.00

Revere "88" 8mm Camera. F 2.5 Coated Lens. Tax incl. \$77.50

**REVERE "99" 8MM TURRET CAMERA**

Provides professional advantages



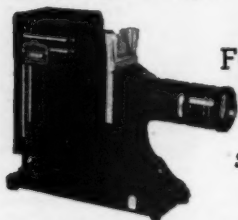
# New Thrills from "STILLS"



Select one of your favorite 2" x 2" transparencies. Project it with an S.V.E. projector onto a screen for your family and friends. They'll be amazed at its life-like depth and clarity. Projected pictures have a beauty and realism you never get from prints. And, by using an S.V.E. projector, you get the finest, clearest projection possible.

**91% OF ALL STILL PROJECTORS IN SCHOOLS, CHURCHES, INDUSTRY ARE S.V.E. PROJECTORS**

Here's why: • Uniform, maximum illumination to edge of screen image. • Sharper definition and contrast. • Greater color fidelity. • Simple to operate, AC or DC. • Ruggedly built, yet light in weight.



**IDEAL  
FOR HOME  
USE**

**S. V. E. Projector  
Model AK**

S.V.E. Model AK 300-watt projector for 2" x 2" slides only. Covers double-frame and the larger Bantam frame. Finest quality projection of 2" x 2" Kodachromes. 5" focal length coated Anastigmat lens, semi-automatic vertical slide changer, leatherette case.

*There is no optical system  
more efficient than the S. V. E.*

**AT ALL LEADING PHOTO DEALERS**

Write for Free Illustrated Projector Catalog

**SOCIETY FOR VISUAL EDUCATION, INC.**

*A Business Corporation*

100 East Ohio Street

Chicago 11, Ill.

there is bound to be some camera movement, but not enough — as a rule — to be objectionable in a small snapshot print." — Ed.

## Experiment In Glamour

Sirs:

Enclosed is a photograph taken as an experiment in using the techniques advanced by Mr. W. R. Harrison in his article (Glamour Made to Order, Jan., Feb.). Part 2, on draping was the most helpful to me personally, although both articles were excellent.

Mr. Harrison deserves a lot of credit for the simple and interesting presentation of these articles despite the critical views expressed by some of your readers.



The Susie Q in my pictures is Miss Doris Logan, who, incidentally, asked me to thank MINICAM's editors for the nice things they said about her after seeing some color pictures of her that I submitted recently.

Birmingham, Ala. **SIDNEY LAWRENCE**

## 20 Years In A Barroom

Sirs:

The man who stayed ten nights in a barroom was a piker. I stayed 20 years, and now I'm about to publish the story of my life. The point is, I want to use a lot of photographs in my book. Can I take—without getting into trouble—a photo of a drunken man, a bread line, a flop house, the inside of a cocktail room, or a bouncer beating a drunk?

Los Angeles, Calif. **EARL ROCK**

• Whether or not taking pictures of this type would lead to trouble depends entirely upon the circumstances under which the pictures

THIS AREA  
ENLARGED  
6¼ TIMES



## Top Image Quality... at any Enlargement with Bausch & Lomb Enlarging Lenses

What a beautiful portrait! So natural you can almost feel the dog's soft coat. Yet it is an actual 6¼× enlargement of the tiny area shown above... made through a B&L enlarging lens. Look at the hairline sharpness in the texture of the Dane's coat. Quite a demonstration, even though this is a printed reproduction.\*

Enjoy the thrill of seeing your *own* negatives enlarged in *true* detail, subtle tone and brilliant color... use a B&L enlarging lens on your enlarger. Your **FREE** copy of a new folder on B&L Enlarging Lenses is available from your dealer, or on request from Bausch & Lomb Optical Co., 548-S Smith St., Rochester 2, N. Y.

**BAUSCH & LOMB**

OPTICAL COMPANY

ROCHESTER 2, N. Y.

\*In preparing a printing plate from the original enlargement, losses in detail have occurred at four stages: screening negative, etching original engraving, impressing wax mold, and plating into wax mold.

# AREMAC

*has a party*  
OF SPECIALS

it's our 10th ANNIVERSARY!

We're 10 years old—and looking forward to serving you even better—if possible—in the next 10. But, it's you—not us—that gets all “party” treats when we have an anniversary! Look below and you’ll see what we mean. Here’s a chance to treat yourself to any desired and even hard-to-find equipment—all at prices that will have you patting yourself on the back for days—and days. REMEMBER . . . Our Mail Order Department offers superb detail-perfect service!

## ANNIVERSARY SPECIAL

**New Carl Zeiss Cameras**  
Ikonta “B”—2¼x2¼ Novar F4.5 with Deluxe E. R. case . . . . . \$81.90  
Ikonta “B”—2¼x2¼ Novar F3.5 with Deluxe E. R. case . . . . . 90.90  
Ikonta “C”—2¼x3¼ Novar F4.5 with Deluxe E. R. case . . . . . 90.90  
35mm Ikonta 35—Novar F3.5 with Deluxe E. R. case . . . . . 93.90

All of the above cameras are brand new imported models and have the new Flash Shutters. During our Anniversary Sale, with the purchase of any of the above models for the additional sum of \$1.95 we will include a new Flasher unit.

## NEW KODAKS—JUST ARRIVED AVAILABLE FOR IMMEDIATE DELIVERY

Kodak Flash Bantam-coated F4.5 lens . . . . . \$57.72  
Kodak 35 F4.5 coated-Flash shutter . . . . . 57.72  
Kodak 35 F3.5 coated-Coupled Range Finder-Flash Shutter . . . . . 66.58  
Kodak Vigilant Six 20 F8.3-Flash Shutter . . . . . 42.14  
Kodak Vigilant Six-20 F4.5-Flash Shutter . . . . . 61.18

All of the above cameras are brand new models and have the new Flash Shutters. During our Anniversary Sale, with the purchase of any of the above models for the additional sum of \$3.52 we will include a new Flasher unit.

## LEICA SPECIALS

Leica III-C coated Elmar F3.5 . . . . . \$249.50  
Leica III-C coated Summar F2 . . . . . 299.50  
Leica III-C coated Summar F2 . . . . . 349.50  
Leica III-C coated Xenon F1.5 . . . . . 429.50  
90mm Leitz Wollensaek F4.5 . . . . . 97.50  
90mm Leitz Elmar F4 . . . . . 119.50  
35mm Leitz Elmar F3.5 . . . . . 123.20  
28mm Leitz Hektor F8.3 . . . . . 139.00  
135mm Leitz Hektor F4.5 . . . . . 149.50  
90mm Leitz Thambar F2.2 . . . . . 195.00

## MOVIE SPECIALS

Complete 8mm Movie Outfit consisting of Keystone K8 with F2.5 coated lens and case; 500 Watt Keystone 8mm Projector and case; 30x40 Daltre Screen and General Electric Photo Electric Exposure Meter with case  
REGULAR \$202.85 SPECIAL \$155.40

USE OUR AMAZING NEW TIME PAYMENT PLAN  
10% DOWN UP TO 12 MONTHS TO PAY!

## ENTER NOW! AREMAC'S GLAMOUR GIRL CONTEST!

Send in your favorite glamour shot of sweetheart, wife or gal-friend, and win a valuable photo-equipment prize! Famous judges will make final decision! WRITE TODAY for entry blank, or simply send your photo to our 1 East 43rd Street store, Contest Department. Contest closes September 1st, 1948. Winners names will be announced nationally!

Ask for prices of unadvertised values galore!  
4 Great Stores Coast-to-Coast



CAMERA CO., INC.

# AREMAC

1 EAST 43rd ST., N. Y. C.

were made and used. It could be very thin ice, indeed. We strongly urge you to read “It’s The Law” in the April ’47 issue of MINICAM before you begin.—Ed.

Double-take

Sirs:

I had to look twice at the Picture Parade photo on page 34 of the March MINICAM.

Last summer I took a picture of my son



“working” on his car and you can see the striking similarity for yourself. May I say that this “dull, primary” reader (as another reader recently described photographers like myself in the Last Word column) gets a lot of help out of your swell magazine. Let’s not get technical, huh?

North Banger, N. Y. MRS. E. MCCARTHY.

We’d Have Stayed With Her Husband

Sirs:

The picture of the King Vulture on page 40 of the April MINICAM interested me greatly, and I was still more interested to learn from the caption that this particular bird belonged to a friend of mine, Mr. D. L. Mobley. I can vouch for the fact that Mr. Mobley tamed the vicious bird until it became docile enough to pet as I have both snapshots and 8mm motion pictures of myself petting the same bird. The pictures were taken by my husband—but I might add that although he stayed outside the aviary to shoot the pictures, Mr. Mobley was inside the aviary guarding my safety at all times.

Los Angeles

MRS. ROBT. BOYD.

More Monotropas

Sirs:

You can imagine my surprise when I received my April issue of MINICAM, and turned to page 42. At first I thought some one had been going through my wastebasket when my back was turned, but I take it all back.

I can see that Science Service turned out a better job than mine, but did they have to use a changing bag for a background, hold a table lamp with a 40-watt bulb in one hand, brace the tripod with their feet, and take a wild guess

(Continued on page 132)

# THIS NEW MILLION MIRROR

## PROJECTION SCREEN

Brings Your Pictures  
to Life with

**TWICE THE  
REALISM!**

You'll thrill to the amazing new realism . . . the clear sharpness of all your pictures when you show them on this new Radiant Screen. Here is the secret of this better performance: firmly embedded in the pure white Radiant screen surface are *millions and millions of tiny glass mirrors!* Each tiny mirror reflects all the brightness . . . all the natural, lifelike beauty of your pictures. Black-and-whites are more crisp and contrasty . . . colors more brilliant and true to life.

**Exclusive Radiant features** mean faster screen set-up, positive adjustment, remarkable adaptability to varying projection conditions. These new features include: Self-Opening Tripod Legs\*, Automatic Auto-Lock\*, Screen Leveller\*, Complete Range of Screen Heights . . . as well as many others which your Radiant dealer will demonstrate for you.

\*PAT. PEND.

# RADIANT

Reg. U. S. Pat. Off.

PROJECTION SCREENS

RADIANT MANUFACTURING CORP.

1239 South Talman Avenue, Chicago 8, Illinois.

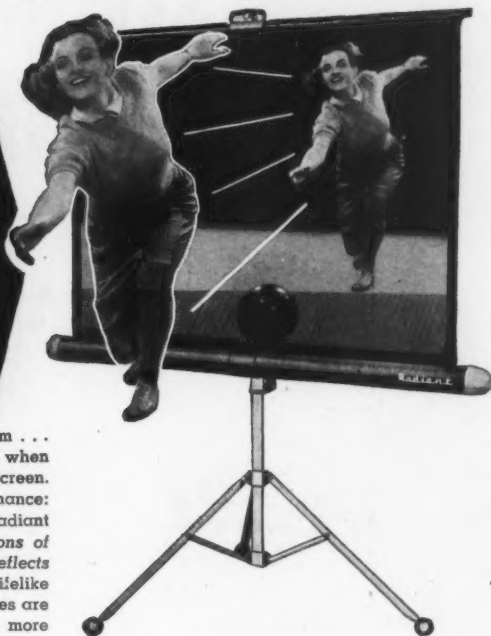
Send me FREE copy of "Secrets of Good Projection"—also latest Radiant Catalog showing complete line of Radiant Portable, Wall, Ceiling and Table Screens.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_



### There is a Radiant Screen

In every size for every  
purpose at prices that  
suit every budget.

### Send for FREE Screen Guide Today!

"Secrets of Good Projection," a 32-page booklet, gives proper screen sizes, correct projection lenses, tips for improving projection and many other valuable facts. Mail coupon for your FREE copy.

### Your Old Screen is Valuable

You can trade in your old, worn out, undersized screen for a new brilliant "Million Mirror" 1948 Radiant! See your dealer.

*Here It Is!*

# THE NEW Edwal THERMO-FINE



IT'S THE "LAZY MAN'S"  
DEVELOPER - *No Work  
No Worry!*



## EDWAL SPECIAL PURPOSE DEVELOPERS

Thermo-fine is designed for the man who wants a "good developer for general photography". It is not, however, intended to replace the following developers which are designed for specialized uses:

**EDWAL-12** — for highest film speed consistent with reasonably fine grain. Gives good negatives with  $\frac{1}{4}$  to  $\frac{1}{2}$  normal exposure or less. 10 to 15 diameter enlargements.

**EDWAL-20** — for super fine grain with normal exposure. 15 to 40 diameter enlargements depending on film used.

**MINICOL** — for miniature Flash and Texture photography. A soft working super fine grain developer that preserves detail in shadows and high lights on brilliantly lighted subjects.

These special purpose developers are tops, each in its own field and are used by thousands of expert photographers all over the world.

## THE MOST CONVENIENT Fine Grain DEVELOPER EVER INVENTED

The best developer for the professional or amateur photographer who takes all kinds of pictures under all kinds of lighting. It eliminates the nuisance of temperature adjusting and prolonged developing times.

LOOK at THESE ADVANTAGES!

- **Full contrast control**  
Puts an end to flat, weak negatives.
- **Fine Grain**  
10 to 15 diameter enlargements.
- **NORMAL Exposure**  
using standard speed ratings.
- **Short Developing Time**  
Shorter than with any other full-contrast fine grain developer.
- **Economical**  
Only 50c per quart. Can be used with any photographically pure water.
- **Heat-Proof**  
Works at any temperature from 65° to 90°F.
- **Reserve Strength**  
Recommended for 8 rolls but in laboratory tests has developed up to 25 rolls per quart without replenishment.
- **NON-Staining**
- **Replenisher Available.**  
Can be used either with or without replenisher.

Now when you are taking more pictures than ever, you will especially appreciate the convenience and economy of Edwal Thermo-Fine. QUART Size: 50c; GALLON Size: \$1.00 REPLENISHING: QUART Size: 50c.

Get EDWAL THERMO-FINE  
at Your Dealer's Today!



*The EDWAL Laboratories, Inc.*

732 FEDERAL STREET, CHICAGO 5, ILLINOIS

In Canada: W. E. Booth Co. Ltd. Toronto and Montreal





How best to preserve the precious present . . . than on film with a versatile, easy-handling Busch. See this fine camera at your dealer today.

Examine its precision construction and unusual features that give "press camera" pictures with little more than "box camera" know-how.

Consider the Busch for the graduate . . . and for yourself. Mail the coupon for complete details.

# BUSCH

**PRECISION CAMERA CORP., 411 S. SANGAMON, CHICAGO 7**  
 Export Distributors: All Countries except Canada: Bell & Howell Co.,  
 International Division, Chicago. Canadian Distributor: PRECISION  
 CAMERAS OF CANADA, 159 Craig St. W., Montreal, P.Q.

**BUSCH PRECISION CAMERA CORP., Dept. 146**  
 411 S. Sangamon St., Chicago 7, Illinois

Please send me your free, illustrated booklet that tells all about the Busch Precision Pressman.

Name

Address

City  State

# PHOTO MARKETS

Compiled by MAY SULLIVAN

**Hudson's Bay Company.** Hudson's Bay House, Winnipeg, Canada, want material that has to do with the Canadian North. Actually, a picture could be taken in the States but if it looks like a Canadian scene it could be used. Most of the photographs purchased by this publication are used to illustrate articles, but in every issue they run a spread of pictures chosen for their photographic excellence rather than for what they illustrate. Photographs must look natural. The editor points out that their magazine is edited for people who know the North and pictures they accept must have an air of genuineness about them. Rate of payment depends upon the excellence of the picture. Black-and-white only.

**Independent Woman,** 1819 Broadway, New York 23, New York, uses in addition to seasonal photographs featured as a cover or frontispiece, photos of women prominent in the news, especially women who are working for the advancement of women or for the other projects connected with human welfare.

**A photographic competition** open to the world and offering more than \$100 in cash prizes has just been announced by the Iowa State Fair and Exposition for its 1948 Photographic Salon.

Eighteen different sections ranging from action photos to still life subjects are offered in this year's classification. The list includes a special class for colored photos.

Dates for the 1948 Iowa Fair are August 25—September 3.

Photographers desiring to compete in this year's event may obtain complete premium list on request to L. B. Cunningham, Secretary, Iowa State Fair, Des Moines, Iowa.

**Dutch Boy Painter Magazine,** published for National Lead Company, Room 1815, 111 Broadway, New York 6, New York, is interested in purchasing pictures of homes, landmarks, outstanding buildings—preserved with paint of National Lead Company's manufacture. Also pictures of painters at work. \$5.00 to \$10.00 is paid on acceptance of photographs. Black-and-white only.

## DON'T FAIL TO SEE

# The NEW IKONTA 35

by ZEISS IKON



ONE OF MANY ZEISS IKON MODELS  
AT LEADING DEALERS

Write for Literature

**The popular-priced 35mm miniature  
that's winning new friends fast**

A smart looking and extremely capable miniature camera. Ideal for color and black-and-white. Two models are available with either an Xenar F:2.8 lens and Compur Rapid shutter speeds to 1/500 sec., and finder shoe, or with an F:3.5 Novar lens and Klio shutter speeds to 1/250 sec. The shutters may be used with flash attachment.

Takes 36 or 20 pictures 1"x1½" on standard 35mm film cartridges. Extremely simple to load and unload. Has front lens-focusing and locking device to prevent double exposures and blanks. Its optical view finder is built in, and its 2-point setting of focus and shutter speeds permits quick shots from 9' to infinity.

**CARL ZEISS, INC.**

Dept. C-32-6, 485 Fifth Ave., New York 17, N. Y.

**The National Geographic Magazine**, 16th and M. Sts. N. W., Washington 6, D.C., requires for publication black-and-white and natural color photographs showing artistically and naturally the physical characteristics of every country and the manners, customs, activities and costumes of every people. A most important requisite of the picture is pictorial effectiveness obtained through careful attention, in treatment of subject, to composition and arrangement. Whenever possible photographs should include people, preferably in action. Generous rates are paid for photographs upon acceptance, but these prices vary widely due to the conditions under which the pictures are made and acquired. Full information must accompany each photograph. Prospective contributors should make a careful study of several issues of the National Geographic Magazine and analyze pictures already published.

**The Oklahoma Transporter**, P. O. Box 814, Tulsa 1, Oklahoma, is in the market for photographs pertaining to Automotive Transportation covering such subjects as trucks on the open road, wrecks, fires, new or unusual equipment, repair shops, etc. With each photograph, or series of photographs, there should be a brief explanation of 50 words or less. Prints should be 8x10 glossy and should have a commercial release. Payment of \$2.00 to \$5.00 per picture will be made upon acceptance. All material submitted should be accompanied by self-addressed stamped envelope.

**The Apostle**, 8800 S. Archer Avenue, Willow Springs, Illinois. This publication is interested in Catholic religious subjects only. Human interest photos of priests, monks, nuns, ceremonies, children or adults praying, any subjects in Catholic religious atmosphere, etc. Black-and-white only. No architectural, scenic or mission shots wanted. Any size acceptable, providing detail is clear. \$2.00 per photo on acceptance. Return postage must be included.

**Hastings House**, Publishers, Inc., 41 E. 50th Street, New York 22, New York, will purchase pictures of scenic and architectural points of interest of Northwest Rocky Mountains, New York State, the South, California and the Midwest. These pictures should be as sharp and as full of contrast as possible inasmuch as their process of reproduction—sheet-fed gravure—tends to soften the photographs. Payment is made at the rate of \$5.00 for one-time, non-exclusive use.

**Brick and Clay Record**, 5 South Wabash Avenue, Chicago 3, Illinois, requires sharp, contrasty prints, professional in tone. They are interested in new construction on all types of buildings. These buildings should preferably be built in the last five or seven years and be constructed of brick, structural clay, tile and terra cotta. Not interested in photos of incomplete buildings. On all pictures contributor should include explanatory information, giving the names of the architect, mason contractor, and the manufacturer who supplied the brick. Also, if you submit a residence picture, send along a floor plan.

## Where You Find an ACE PHOTOGRAPHER, You'll Usually Find a **QUICK-SET** tripod



### "QUICK-SET IS PORTABLY PERFECT" SAYS RUS ARNOLD

Flash expert Arnold, one of the country's leading photographers, chooses the QUICK-SET ELEVATOR... a new addition to QUICK-SET's nationally-famous line. The Quick-Set Elevator embodies the strength, rigidity and lightness of the standard Quick-Set tripods—yet allows up and down adjustment of your camera without manipulating the tripod legs!... Standard and elevator tripods now available in Junior, Senior and Hi-Boy models.

#### MAIL THIS COUPON TODAY

QUICK-SET, INC.  
1312 N. Elston Ave., Dept. 48, Chicago 22, Illinois  
Please send me without obligation a copy of your detailed brochure on QUICK-SET Tripods.

Name

Address

City  State

I use the following cameras:

Please print name, etc., clearly.

# Perfex brings you a great new Camera at a popular price!

SERIES 100 CAMERAS



for BETTER PICTURES  
IN FULL COLOR OR  
BLACK and WHITE

WITH WOLLENSAK  
F-4.5 COATED LENS  
**\$39.99**

All prices quoted  
include Federal Tax



## Perfex Deluxe with FOCAL PLANE SHUTTER

This great Perfex Deluxe with focal plane shutter and coupled range finder provides the ease of handling—the versatility demanded by advanced amateurs and professional photographers. Its high quality lens equipment and wide range of shutter speeds (1/25 to 1/1250 sec.) adapt it to a wide range of picture making.

WITH F-2.8 LENS ..... \$ 99.50  
WITH F-3.5 LENS ..... 173.00

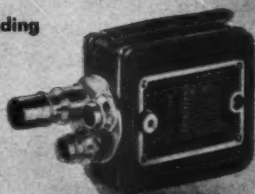
Perfex—now at popular prices—brings you these great Series 100 Cameras. All the great features for which Perfex is known are here—coupled range finder for quick, critical focusing; exposure counter; color corrected lenses and Alphax shutters. For breathtaking Kodachromes and new beauty in black and white, your best bet is Perfex.

WITH F-4.5 COATED LENS IN ALPHAX SHUTTER.....\$39.99

## The Perfex Magazine Loading Double 8 Movie Camera

For home and professional movies at their best. The convenience of magazine loading—a turret front that mounts three lenses, five operating speeds plus a powerful time tested motor. Its fine performance and fine pictures will thrill you.

WITH F-2.5 LENS.....\$ 99.50  
WITH F-1.9 LENS..... 133.50



CAMERA CORPORATION OF AMERICA

844 W. ADAMS • CHICAGO

AT BETTER DEALERS EVERYWHERE

It's the meter with a MEMORY  
just read the answer!



Only 5 seconds to get correct exposures



Complete... trident analyzes  
for difficult scenes



Have you seen the NEW  
GE exposure meter?



Reads reflected or incident  
light... even in full sunlight

Simple as A - B - C



A honey for color pictures too!



Here's the complete exposure guide for beginner or expert... for movies or stills. And so easy to use! Exacting exposure control... positive precision operation... palm-fitting, vest-pocket size... automatic light-range shift... travel-ready sturdiness. Ask your dealer. Type PR-1 meter, \$32.50\*. Apparatus Dept., General Electric Company, Schenectady 5, N. Y.

ALSO famous, dependable Type DW-38 meter, \$19.95\*.

\*In states where Fair Trade contracts are in effect. Fed. tax inc.

**GENERAL GE ELECTRIC**  
606-263E



# WESTEN'S SHIPS TO EVERY CONTINENT!

## ALL ORDERS SHIPPED INSURED . . . WRITE WESTEN'S, SANTA BARBARA

We Specialize in Overseas Orders—Rushed by Fastest Carriers! Quick Service to all points in the eleven Western States. Orders going out daily to far corners of the globe! Write us your needs!

EVERY ORDER PERSONALLY SUPERVISED BY H. A. WESTEN.

TELEPHONE YOUR ORDERS—SANTA BARBARA 2-4377.

G I ORDERS GET THE GREEN LIGHT AT WESTEN'S.

We've often been asked, and repeat again:  
"There's no better buy at the price than—"



**ARGUS  
CIII  
\$74.71  
With Case**

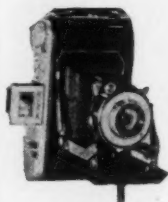
Here's the tops in 35mm Cameras—three big features! Rangefinder, color corrected F3.5 Anastigmat lens; built-in synchro flash! For black and white, or gorgeous kodachrome.

### OTHER ARGUS CAMERAS

Argus 21 New Markfinder model, w/c. . . . \$58.08  
Argosflex Model 1, wonderful reflex camera, w/c \$69.63

### BARGAIN-OF-THE-MONTH

ARGUS A2 with F4.5 Ilex. New! In Evr. Case, SPECIAL!  
But order promptly. . . . . **\$30.81**



**Kodak  
Monitor  
Six-20**

Leader of folding Kodaks—with Kodak Anastigmat special f4.5 lens; flash supermatic shutter, 9 speeds to 1/400, genuine leather covering.  
Coated . . . . . **\$93.58**

COMPLETE OUTFIT, including Kodak Monitor, Eveready Case, flash unit, sunshade and 2 filters. 6 rolls film. . . . . **\$112.50**

EASTMAN VIGILANT 620, Kodak lens. . . . . **\$20.20**  
Deluxe Carrying Case—\$6.00

KODAK REFLEX Camera, with twin lens! Luminized four-element fast F3.5 twin lenses; and 1/400 automatically synchronized shutter; 2 1/2 x 3 1/4 pictures, 12 black and white or 9 color shots per roll. With case. . . . . **\$137.92**

### Westen's New Low Price for Briskin 8 Magazine Movie Cameras

With F2.5 Coated  
Wollensaak Lens

**\$79.50**

Take movies in beautiful color, or clear black and white! Magazine load eliminates threading, foggings and light flashes on film when changing reels. Black moroccan leather, or simulated alligator leather. Clear image view-finder. Four speeds, including slow control.

WESTEN'S BUYS AND TRADES CAMERAS

### Latest Imported Cameras— Order Now from WESTEN'S



Terrific Saving on  
**AUTOMATIC  
ROLLEIFLEX**  
with coated lens

Now! The finest, fastest-operating, most versatile Rollei Camera ever offered!  
With F3.5 Xenar, coated — NOW. **\$259**  
With F3.5 Tessar coated — NOW **\$289**

IKONTA 35, using 35mm film, Novar F3.5, synch. shutter, case. . . . \$ 93.90  
ZEISS IKOFLEX I, twin lens reflex F3.5 corrected for color, with case. . . \$126.00  
SUPER IKONTA A, Spec. rgl., Tessar F3.5 Compur, Rapid shutter; speeds to 1/500 sec. with Evr. case. . . . \$194.90  
LEICA IIC, coated Elmar 50mm F3.5 \$332.50  
LEICA IIC, coated Summilux 50 mm F3.5 \$448.00  
ROBOT II, F2.8 Xenar, with case. . . \$245.00  
KINE EXAKTA, 35mm single lens reflex, F2.8 Zeiss Tessar, speeds to 1/1000 sec. . . . . \$285.00  
NEW PRAKTIFLEX, F2.8 case. . . . \$121.25  
Rolleilux Rollei. . . . . \$ 52.50  
Flete Adapter Rollei. . . . . \$ 17.50  
Write for Rollei, Leica Accessory Lists

### 8MM MOVIE CAMERAS

Eastman Cine Mag.  
8-90 w/c. . . . . \$165.00  
Revere 88 F2.5. . . . . 77.50  
Revere 88 F1.9. . . . . 104.50  
Revere Turret F2.8 110.00  
Revere Magazine F2.8 . . . . . 127.50  
Revere Turret Magazine . . . . . 152.00  
Perflex Mag. Turret F2.5. . . . . 99.50  
Briskin Mag. F2.5 79.50

### COLORFILMS

Kodachrome 127. . . . . \$1.65  
120, 620 . . . . . 1.82  
116 or 616. . . . . 2.20  
Ektachrome or Ansacolor 120, 620, each . . . . . 1.37

### KODACHROME

Daylight or Type A 8mm Kodachrome roll . . . . . \$4.14  
(11m 4 roll)  
8mm Kodachrome Magazine . . . . . 4.81  
8mm Kodachrome 100 ft. for Bolex H-8 . . . . . 15.47  
35mm Kodachrome 20 exp. . . . . 3.32  
35mm Kodachrome 36 exp. . . . . 5.25  
16mm Kodachrome 50 ft. for Simplex 6.35

### NORWOOD DIRECTOR

**\$32.04**

Revolutionary 3-way Exposure Meter! Measures illumination, contrast, brightness, for color or black-and-white; indoors or out. Use with still or movie cameras. **\$3.45**  
Evr. case. . . . .

### WILCOX PORTABLE

#### STROBOLITE

Synchronizes with any shutter equipped for flash; fits on standard battery case. . . . . **\$149.50**  
(add Fed. tax \$15.00)

### The New Tiny BOLSEY \$50.63



Extremely compact; coupled rangefinder; precision, speed, economy! F3.2 coated lens.

### HARD-TO-GET ITEMS But Delivery Guaranteed!

Ciroflex F3.5 Rapax Shutter, Case. . . . \$107.95  
The New 16mm Natco Sound Proj. . . . . 289.50  
Flashbulbs Press 40, cast lots. . . . . 21.70  
Flashbulbs Press, 25, case lots. . . . . 16.80  
GE50, case. . . . . 15.80  
GE31 for Focaplane Shutters, Case. . . . 16.95  
For Color: GE 22B, case lots. . . . . 29.00  
GE 50B, case lots. . . . . 29.00  
New Revere 16mm Sound Proj. . . . . 287.50  
New 16mm Revere Magazine F2.5. . . . . 127.50  
New 16mm Revere Magazine F1.9. . . . . 155.00  
Evr. Case for Medalist 1 or 2, Ikonflex 1, 2, or 3, Kine Exakta, Ikonta B, Super Ikonta B, EK, each. . . . . 15.00  
35mm Rollei F3.2 Camera with Case. . . . 57.98  
8mm Revere Magazine Turret F2.8. . . . . 152.50  
Carrying Case for Revere Proj. Evr. Type Deluxe Gadget Bag for 4x5 Graphic 2, acc. . . . . 29.50

### ATTENTION: SERVICE MEN OVERSEAS — 24 HOUR FINISHING!

Write for our \$5.00, \$10.00 or \$15.00 FINISHING COUPONS—send your films, 24 hour service on black-and-white—rushed by fastest carrier back to you within 24 hours after we receive them! A special WESTEN'S service!

PAYMENT WITH ORDER SPEEDS DELIVERY.  
SEND AT LEAST 25% WITH C. O. D.'S

**Westen's**  
SANTA BARBARA, CALIFORNIA



YOU CAN MAKE EVERY EXPOSURE A GOOD ONE  
WITH

# The NORWOOD Director

EXPOSURE METER

Yes, the Norwood Director provides the most consistent, most accurate, quickest, and easiest method of determining exposure. Just ask the photographer who owns one. Proof of a pudding is in the eating, and the proof of an exposure meter is in the quality of the exposures it indicates.

THE METER WITH THE  
AMAZING PHOTOSPHERE\*



Incident light is that light which illuminates your photographic scene whether it be sunlight or artificial light.

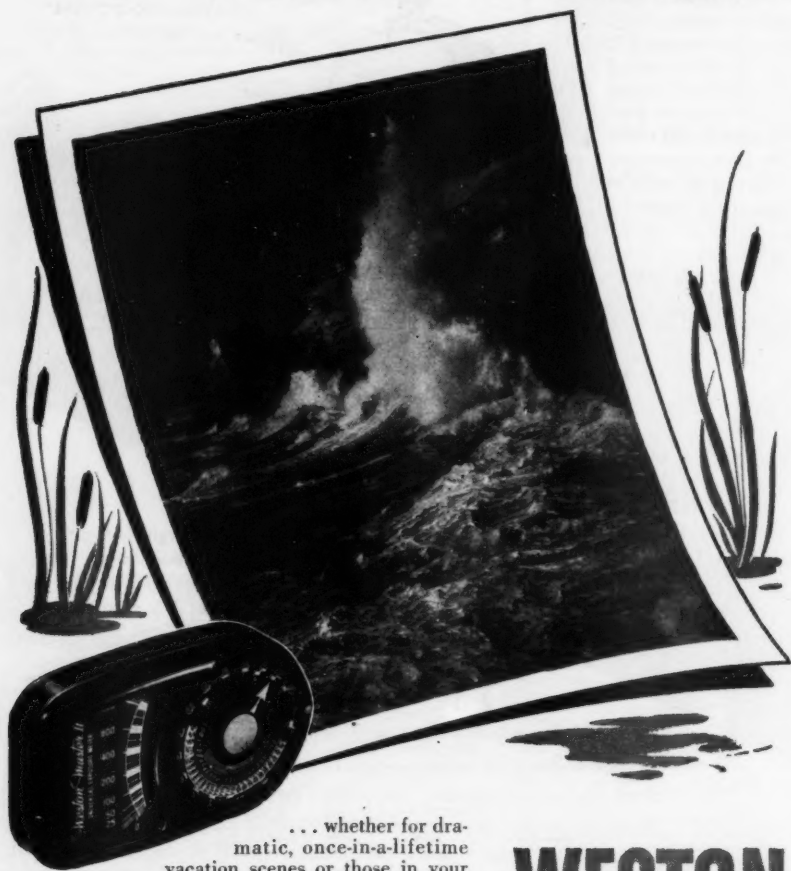
\*REG. U. S. PAT. OFF.

*Correct Exposure* every time is insured by the Norwood Director, out-of-doors or indoors—for movies and stills. It is perfect for black and white—a must for color. Yes, the Norwood Director is definitely better—it is distinctly different. It employs the revolutionary principle of integrating and measuring all of the incident light falling on the camera side of the photographic subject. No tilting to avoid the effect of sky or foreground is necessary. No compensation for subject color or brightness is required. No fuss—no indecision. You just read the exposure and shoot with confidence. **\$29.95** plus tax.

*Write* FOR YOUR COPY OF OUR INTERESTING,  
INFORMATIVE BOOKLET, "CORRECT EXPOSURE"

AMERICAN BOLEX COMPANY, INC.  
521 FIFTH AVENUE, NEW YORK 17, N. Y.

*Come Summer...*  
**YOU'LL NEED THE** *Master...*



... whether for dramatic, once-in-a-lifetime vacation scenes or those in your own backyard . . . in black-and-white or glowing color . . . still or ciné shots. For true tone rendering, the Master is your supreme guide. Its restricted viewing angle, its *exclusive exposure control dial*, and the ease with which you can aim your WESTON, combine to give you perfect exposures every time. See the Master at your dealer's, or write to WESTON ELECTRICAL INSTRUMENT CORP., 649 Frelinghuysen Avenue, Newark 5, N. J.

# WESTON

## EXPOSURE METER

*The meter  
 most photographers use*



## NEW YORK INSTITUTE OF PHOTOGRAPHY 38 YEARS of successful experience in teaching photography

**L**EADING colleges and universities point with pride to their many years of experience in preparing young men and women for the future. **EXPERIENCE** is the **MEASURE** by which they judge their ability to train students for successful careers. By these very standards *you* should judge *your* photographic school. The New York Institute of Photography is America's oldest and largest school devoted exclusively to the training of men and women for the well-paid jobs that photography offers to trained technicians.

### RESIDENT TRAINING AT AMERICA'S LARGEST PHOTOGRAPHIC SCHOOL

Our nationally famous resident school offers ideal facilities for the proper training of ambitious men and women in photography. Eleven spacious studios and twelve laboratories cover 18,000 square feet of space in the heart of New York City. Here you will find up-to-the minute photographic apparatus of every kind; complete facilities for your training in this exciting field.

### LEARN FROM COMPETENT FULL-TIME INSTRUCTORS

Photographic "aces"—top-flight experts in every branch of photography—are your teachers! Every member of the New York Institute faculty is an accredited and licensed teacher who devotes his *full time* to your training.

### N. Y. I. HOME STUDY COURSES LEAD TO SUCCESS

You can take the N. Y. I. short-cut to success in photography by studying at home in your spare time. The N. Y. I. Home Study Course is clearly illustrated, easy-to-read, easy-to-understand. Staff instructors answer your questions, helpfully criticize your pictures and give expert advice to improve your work. No expensive equipment is needed; in fact, many of our graduates earned enough money while learning to pay for the entire cost of the course.

**FREE!**

Plan your future! Send the coupon right now for free information telling how you can win success in photography.

RESIDENT TRAINING IS AVAILABLE UNDER THE G. I. BILL

**NEW YORK INSTITUTE  
OF PHOTOGRAPHY**

**10 West 33 Street, New York 1**

**LEADERSHIP SINCE 1910**

New York Institute of Photography  
Dept. 117, 10 West 33 Street  
New York 1, New York

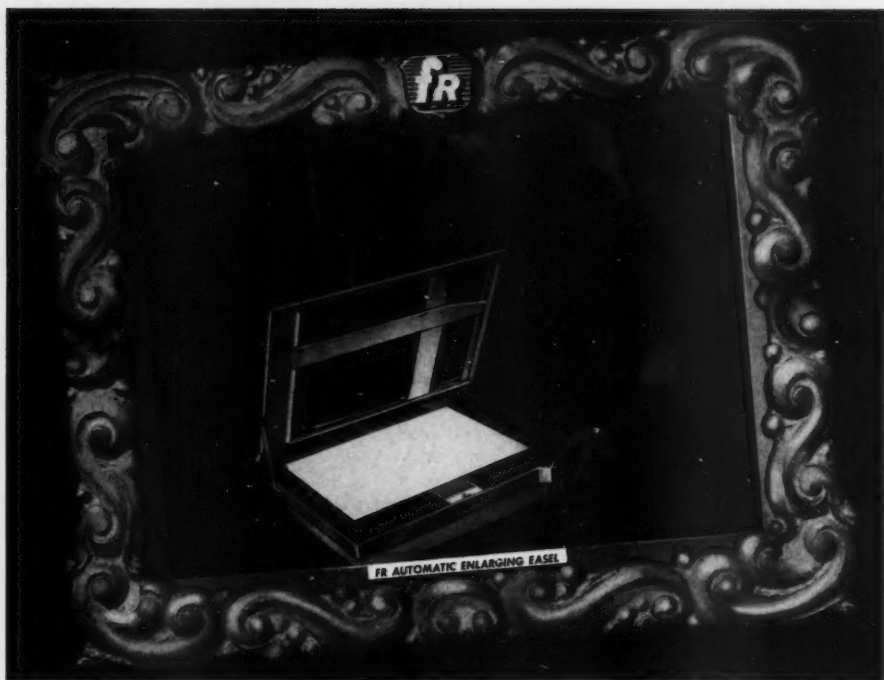
**38th  
YEAR**

Please send me complete information regarding  
☐ Resident Training ☐ Home Study Course

Name .....  
(Please Print)

Address .....

City..... Zone... State.....



## *Aristocrat of the Dark Room*


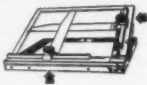

A precision-built enlarging easel, especially designed by FR for the amateur and professional who demand the finest in dark room equipment. Exclusive features make it faster, smoother, simpler.

The **THIRD** knob makes margin adjustments practically *automatic*. The **THIRD** hand eliminates uneven margins—unsightly fingerprints on finished enlargements.

Every true craftsman will want to own an FR Automatic Enlarging Easel. Laminated base, gray crackle finish, and polished aluminum trim make it warp-proof and rust-proof. A built-in focusing surface accommodates paper up to 11" x 14".

At all first rate photographic dealers — \$27.00 including Federal tax. A product of The FR Corporation, 951 Brook Avenue, New York 56, N. Y.

### FR AUTOMATIC ENLARGING EASEL As simple as 1-2-3

1.  This is the **THIRD** knob that automatically sets both top and left-hand margins at the same time!
2.  Two knobs on mask set right-hand and bottom margins.
3.  Third hand grasps paper when mask is lowered and holds it firmly while you close easel.



*if it's* **fr** *it's first rate!*

World's largest  
manufacturers of  
Synchronized Range  
Finders and Speed  
Flash Synchronizers

# KALART®

FOR BETTER  
EASIER-TO-TAKE  
PICTURES



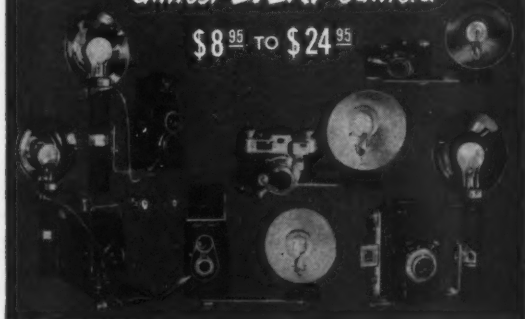
Same girl—same day. Left—facing sun. Right—with Synchro-Sunlight.

## Take "No Squint" Portraits The Kalart Synchro-Sunlight Way

The old way was to make your subject face the sun. Result an unpleasant, squinting expression. The new Kalart Synchro-Sunlight way is to place your subject with *back or side* to the sun—or in the shade—and then let your Kalart Speed Flash supply the main illumination. Such a simple way to get life-like photos. When you click the shutter, the Kalart synchronizer automatically lights the flash bulb at just the right moment to give you a clear, brilliant picture. A Kalart Speed Flash can be attached to most cameras in a few minutes. Take your camera to your dealer for a demonstration.

There's a **KALART** Speed Flash for  
almost **EVERY** Camera

\$8<sup>95</sup> TO \$24<sup>95</sup>



### ★ QUESTION BOX ★

*Accurate focusing in dim light*

**Q**—I have read that the Camera of Tomorrow has a built-in gadget for focusing in dim light. Can I buy this device separately for use on my Speed Graphic? It has a Kalart Range Finder.

**A**—Yes. The Kalart Focuspot can be attached to "E type" Kalart Range Finders and gives you the same practical advantages as the Focuspot in the Kalart "Camera of Tomorrow". It throws two beams of light on your subject, and when they merge, you have accurate focus. Beams also show approximate center of picture. The price of the Kalart Focuspot is \$15.25.

*Positive shutter action with flash*

**Q**—Once when I borrowed a friend's camera to take flash pictures, the batteries fired the bulb but were too weak to trip the shutter. Would I have this trouble with a Kalart?

**A**—No. An important Kalart patented feature is that it opens the shutter *mechanically*. There is no danger of your shutter not working because of weak batteries.



**FREE** "How to Take  
Synchro-Sunlight  
Pictures"

20 pages, illustrated, full of practical information on how to get better outdoor portraits and perfect shots under difficult light conditions. Mail coupon today.

The Kalart Company, Inc.  
Dept. C-6, Stamford, Conn.

Please send free copy of "How to Take Synchro-Sunlight Pictures." Also, tell me which Kalart Speed Flash I should have.

Make of camera.....

Make or type of shutter.....

Name .....

Street .....

City..... State.....

Name of dealer.....

Any questions? Write them on the margin or a separate sheet of paper.

# KALART

*Announcing.....*

THE

NEW

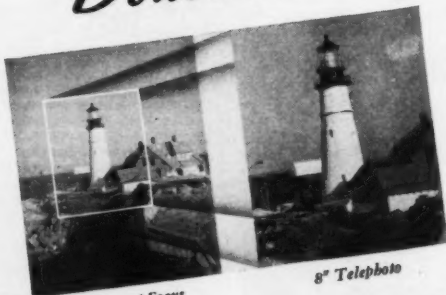
# 8" Raptar Telephoto

FOR 2 1/4 x 3 1/4 — 3 1/4 x 4 1/4 CAMERAS

A fully corrected, self-contained anastigmat, Wollensak's new Telephoto is capable of outstanding performance in black and white or color. Brings sports events, nature subjects, distant scenery to you in sharpest detail. Increase the scope... improve the quality of your work with this superb new Raptar.



## Doubles Image Size



4" Normal Focus

8" Telephoto

- Like a telescope, the 8" Raptar Telephoto magnifies. Gives twice image size of normal 4" lens (2 1/4 x 3 1/4); 1 1/2 image size of 5" lens (3 1/4 x 4 1/4). Yet requires only 4 1/2" bellows draw. Compact. Light weight.

**Wollensak**  
MEANS FINE LENSES

OPTICAL CO., ROCHESTER 5, N. Y., U. S. A.





Reproduced from a transparency taken on glorious *true-color* Ansco Color Film. The honest reality of color reproduction is the most amazing characteristic of Ansco Color.

## *Take true color pictures, not colored pictures!*

**L**OAD your camera with Ansco Color Film and photograph *anything*...

No matter how delicate or subdued, no matter how riotous or brilliant the colors of your subject are, properly exposed Ansco Color Film will reproduce the hues and tints with a fidelity that will astonish you!

Your dealer can have your Ansco Color Film developed quickly . . . or you can do it in your own darkroom in 90 minutes! Then you can have full color prints made from your transparencies on Ansco Printon.

If your lens is f6.3 or faster, start taking *more* pictures in *true color*. Get Ansco Color

Film in 35mm cartridges, 120 or 620 rolls, sheet sizes, and 16mm movie spools. **Ansco, Binghamton, New York.** A Division of General Aniline & Film Corporation.



# Glorious New Beauty

## from your Kodachrome Slides

300 watt brilliant illumination with the New AMPROSLIDE Projector



### PLUS many added features



Your 35 mm. Kodachrome shots spring to life with amazing richness when shown on this new Amproslide Projector. All colors are more brilliant, more sharply defined. You get everything there is out of every picture.

Black and whites are crisper, and more contrasty, too. You see your pictures at their very best on this Ampro Model 30-A. The reason for this increased brilliance is the *special Ampro Condenser design* that delivers maximum illumination from

300-watt lamp. Other basic Ampro features include: *Self-Centering Slide Carrier* that positions each slide accurately on optical axis, paper or glass mounted, and maintains hair-line focus—*Precision Focusing Lens*—*Coated Lens*—Condenser Unit easily removable for cleaning—handsome *Lift-Off Case*. See better photographic dealers and department stores for a demonstration!

AMPRO CORPORATION • 2835 N. Western Ave. Chicago 18, Ill.

A General Precision Equipment Corporation Subsidiary  
IN CANADA: Telephoto Industries Limited, 1195 Bay Street, Toronto

### Send for FREE Circular

On Amproslide Projector Model 30-A giving full specifications and prices. If you are interested in sound motion pictures send 10c for 16-page booklet, "The Amazing Story of Sound Motion Pictures." It dramatically illustrates the various steps in the recording and reproducing of sound on film.



**AMPRO**  
PRECISION CINÉ EQUIPMENT

Trade Mark  
Reg. U.S.  
Pat. Off.



### AMPRO 8mm. PROJECTOR

—a deluxe machine with 750 watt lamp enriches your enjoyment of your 8mm. movies—provides 16mm. quality projection.



### THE AMPRO "IMPERIAL"

16mm. Silent Projector. A rugged dependable machine with an enviable record of performance in thousands of homes, churches, clubs and schools all over the world.

AMPRO CORPORATION  
2835 N. Western Ave., Chicago 18, Ill.  
Please send me free circular giving full details about the Amproslide Model 30-A Projector.  
I enclose 10c ☐ for a copy of the illustrated booklet, "The Amazing Story of Sound Motion Pictures."  
I am also interested in:  
☐ Ampro 16 mm. Silent Projector ☐ Ampro 8 mm. Silent Projector

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_



# *America's new big name in film!*

If you want better, more true-to-life pictures, now try Kryptar, the *new* big name in film. A fine grain panchromatic film, Kryptar gives even an amateur thrilling professional-looking pictures. Comes in all popular sizes. Get two rolls instead of one, today! Kryptar Corporation, Rochester, New York.



*"It's panchromatic...it's guaranteed!"*



ABBOTT SYDNEY

*Announcing*  
MINICAM'S ANNUAL  
COVER CONTEST

\$100 — FOR EVERY PRIZE-WINNING COVER SHOT — \$100

CONTEST INFORMATION

ALL photographers are eligible for this 4th Annual Cover Contest which opens on June 1st., 1948. There is no limitation on subject matter, but color material must have been exposed by entrant. Must never have been published.

Transparencies must be at least  $2\frac{1}{4}$  inches in the shortest dimension . . . larger transparencies preferred. Because of production difficulties, 35mm slides cannot be considered for covers. When sending these for editorial use, please do not address Cover Contest.

Each entry must be properly identified with the contestant's name and address, securely wrapped, and accompanied by return postage. Address all entries to: Cover Contest, Minicam Photography, 22 East 12th Street, Cincinnati 10, Ohio. All submissions must be postmarked no later than September 16th, 1948.

All color shots will be returned whether they are accepted for publication or not. The editors plan to purchase color material for use inside the magazine. One hundred dollars will be awarded to each cover winner; Honorable Mention awards—subscriptions to Minicam—will also be given. Look for the winners' names in the December issue.

# Exposure

AND WHAT IT MEANS



HERBERT LANKS—BLACK STAR

**A down to earth discussion of the problems of exposure, with special reference to the incident light method of exposure determination**

By Milton G. Herbert

**A**MONG THE FACTS about light thus far discovered, a photographer is particularly interested in how light varies in *type, quality, color, and intensity*. Each of these must be considered before a "perfect" negative can be obtained through proper exposure.

There are two basic types of light—*incident* and *reflected*. Incident light is the most common type, because without it there can be no *reflected* light. The natural source of incident light is the sun, while artificial sources of incident light vary from the flare of a match to the continuous glow of a light bulb. Since we have no control over the source of natural

light, we must interpret the amount of incident light falling upon a subject in order to obtain a properly exposed image upon a negative. With artificial light it is a different story. We can move the

**THE BRILLIANT LIGHT** of the sun, reflected from sky, sea, and sand often causes acute exposure headaches when shooting color material. A reflected light type meter, unless used intelligently, may give you overexposed background and underexposed flesh tones in a shot such as this. Even if you remember to "refrain from using a stop smaller than F:11 when using color on brilliant beaches" you sometimes have trouble. Incident light readings are balanced to give more correct flesh tones when using color film.

PHOTO BY BILL FICKLIN





sources of our incident light about at will, increasing or decreasing intensity whenever necessary in order to arrive at a set standard of exposure.

When incident light strikes an object it is either absorbed, or reflected in varying degrees. This ability of every subject to change and affect reflected light provides the basis for our perception of brilliance, color, texture, and gradation. A brilliant subject reflects a large quantity of incident light, while a dark subject absorbs it. No matter what the intensity of the light source may be, a dark object remains dark and a light object remains light if they are illuminated by the same source. Since the reflectance value remains the same in both, correct relationship of lights to darks will always remain constant (within the limits of the film in use), provided a light meter is properly used to measure the incident light falling upon an object.

#### Light and Your Film

The film that you use, generally speaking, consists of a light-sensitive emulsion which is coated in a thin layer upon a clear celluloid.

When the light falls upon this emulsion, a chemical reaction takes place in the silver salts. Developing turns the areas which have been exposed to the greatest amount of light to varying degrees of black and, while development takes place slowly, it is possible to develop the film to a point where almost all of it is a solid black and very little tone, or gradation, is left.

If we change the type of film, we have another factor which enters the picture—the one known as *film speed*, or *exposure index*. This factor is designated by a series of numbers which has been established by the American Standards Association and known as the *A.S.A. Exposure Index*, or by a similar set known as *Weston Film Speeds*. These numbers simply indicate the relative speeds of the films available today.

To get a clearer idea of the action of light upon the emulsion of the film, we can compare it to water running from a faucet. As shown in Figure 1-A, the fau-

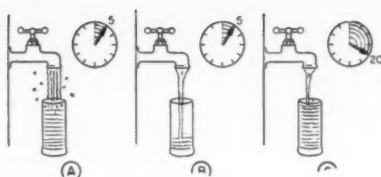


FIGURE 1

cet is turned on full and the glass fills in, say, 5 seconds. At B, however, we have closed the faucet part way and in 5 seconds we find the glass only partially filled. To fill the glass, at this reduced flow, we must allow the water to run 20 seconds, as shown at 1-C.

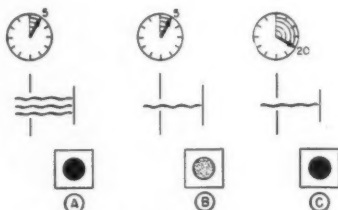


FIGURE 2

In a like manner, light affects the silver in the emulsion of our film. In Figure 2-A we see that a large amount of light quickly turns the silver black. Cutting down the quantity of light, as at 2-B, only turns the silver to a light gray in the same amount of time. Now, if we continue to expose the film to the same amount of light we find that it will turn black in 20 seconds. In other words, a large amount of light acting for a short time upon a photographic emulsion will produce the same effect that a small amount of light does at a greater length of time. We refer to the amount of light and portion of time by one word—*exposure*.

#### Controlling Exposure

Since exposure can be controlled with both time and amount of light to produce the same effect, we must have some means of regulating these factors on the camera. Most cameras provide a light control called an *iris diaphragm*. For controlling

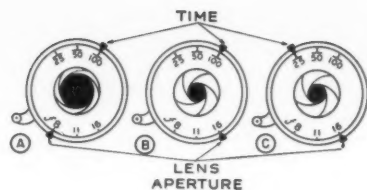


FIGURE 3

time a *shutter* is installed. Used in conjunction, they have the same effect as the faucet and time in Figure 1, and the amount of light and time as in Figure 2. This is shown in Figure 3.

Shutter settings are easily compared as each setting is either one-half as much, or twice as long, as its adjacent setting. Iris diaphragm markings or *stops*, however, are not as easily compared. The important thing to remember, though, is that F-numbers 4, 5, 6, 8, 11, 16, 22, 32, indicate successive decreases of one half in light intensity. Thus, F:8 admits twice as much light as F:11 and, conversely, F:32 admits only one-half as much light as

F:22. Knowing this, we can obtain identical exposures from any of the following combinations: 1/25-sec. at F:22; 1/50-sec. at F:16; 1/100-sec. at F:11, and 1/200-sec. at F:8.

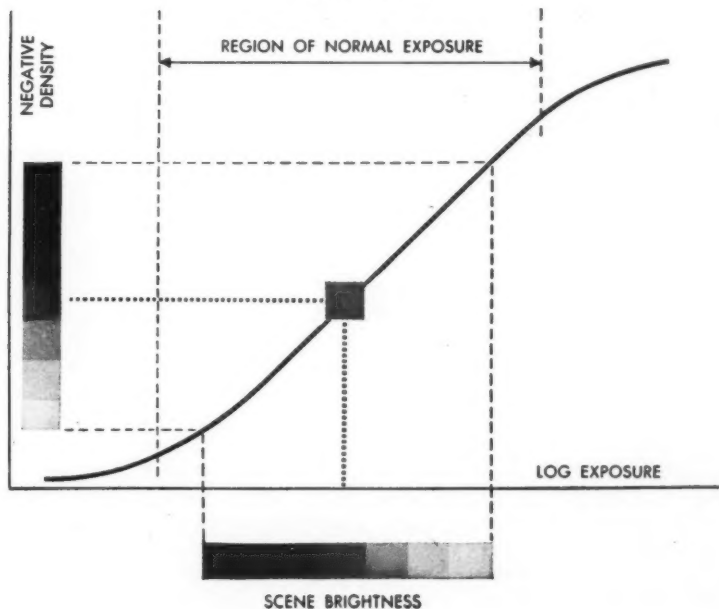
#### What is Correct Exposure

Correct exposure is a much abused term which refers to that combination of light condition and camera adjustment which will produce a perfect negative or color transparency. A perfect exposure reproduces the subjects in the original scene as closely as possible.

Most subjects consist of areas of varying brightness. These areas are reproduced on the film in degrees of tone, from black to white, which are called *gradations*. These gradations are represented by a series of gray tones which become lighter, as shown in Figure 4. The light that enters the camera exposes the film to these various tones as depicted along the horizontal line of the diagram labeled *Log Exposure*.

The response of a particular film to the various brightness values is represented

FIGURE 4



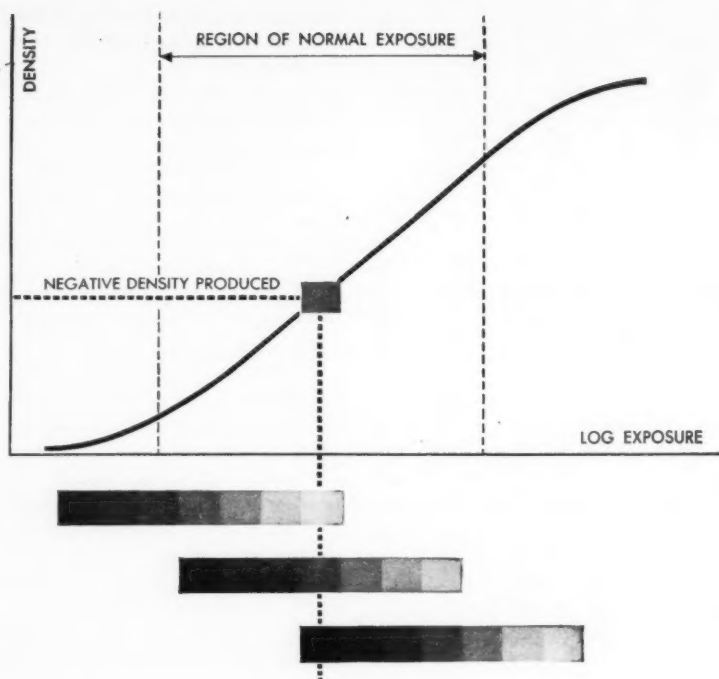


FIGURE 5

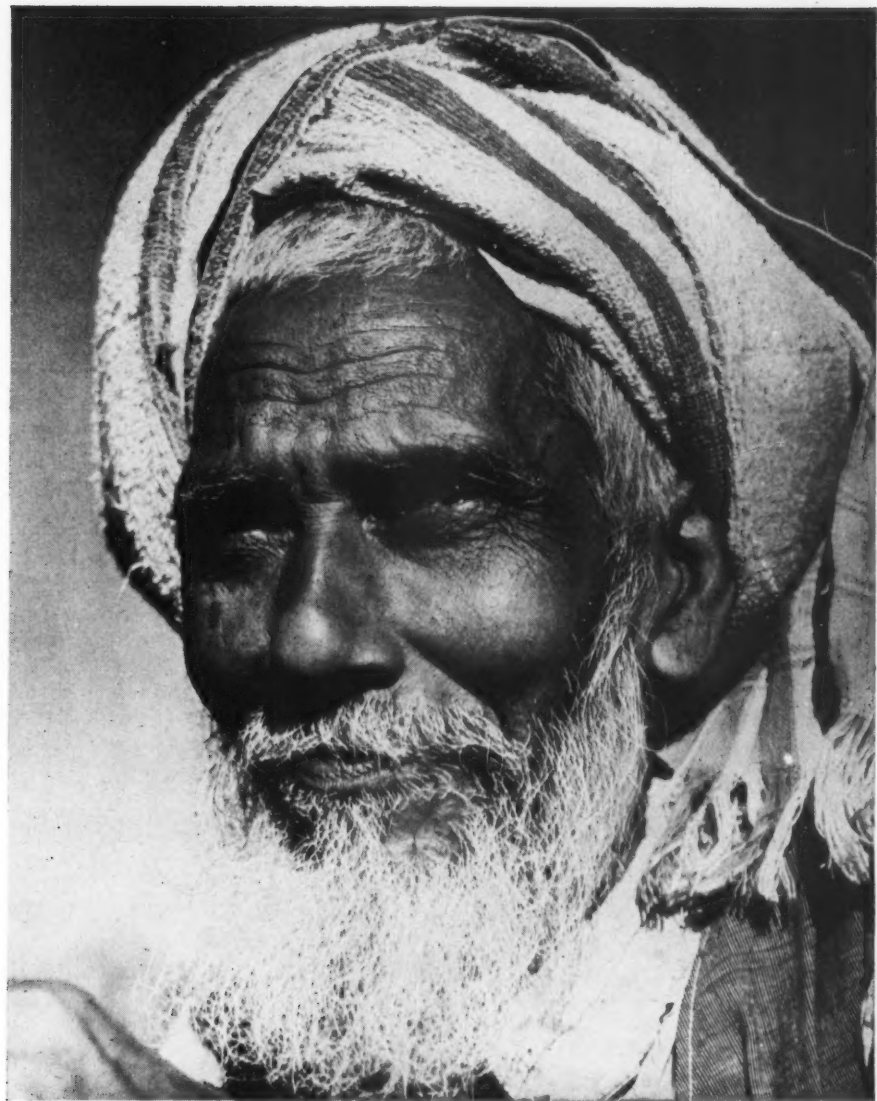
by a curve resembling a flattened "S". To accurately reproduce each value of brightness in the scene, the band of gray tones representing the subject should be located directly under the straight line portion of the diagram, as shown by the dotted lines in Figure 4.

By altering the camera adjustments, to gain greater or less exposure, it is possible to move the band of gray along the horizontal line in either direction, as in Figure 5. If underexposure is given, the band moves to the left and we have a short tonal range with gray predominant. In overexposure, the band is moved to the right and the lighter shades are crowded completely off the scale. It will be noted that in underexposure the lightest tone of the subject falls beneath the middle point of the curve and this light tone is reproduced as a medium gray on the negative density scale, while the dark grays go completely black without detail.

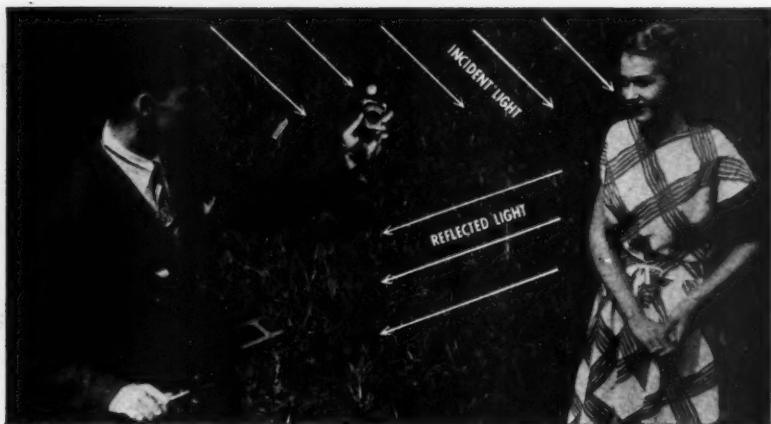
The center band of grays, in Figure 5, show how they are accommodated upon the film emulsion when correct exposure is given. The band showing overexposure graphically illustrates how the darkest gray falls under the center point of the curve and is reproduced as a medium gray, while the lightest gray comes under the shoulder of the curve and will be reproduced as a detailless white in the final print.

#### Determining Exposure By Meter

As we stated before, the intensity of light varies over a considerable range—a range that can be expressed as covering a ratio of over 100,000 to 1. While photographs can be made "by guess and by gosh," unless the actual value of the light condition is known only a few of them will be exposed correctly. The only consistently accurate way to interpret the value of light is by an *exposure meter*.



**IF YOU THINK** this one is easy, in color, better make sure you have a gray card along. It will aid you in obtaining a more nearly correct exposure with one reading of a reflected light type exposure meter. The intense sky, bright turban, and white beard may cause a false reading resulting in underexposure of the flesh tones and shadows. Either the gray card method or several averaged readings is the answer. *Berko Photo.*



**THERE ARE TWO** basic types of light — Incident and Reflected

Exposure meters, like light, are available in several types; those which record and interpret reflected light and those which can either be adapted to, or are designed especially for, incident light.

Among the reflected light types we also find various categories: the photoelectric, the extinction, and the comparison. Incident light types are all photoelectric.

Of these various styles, the photoelectric is the most practical method yet devised for it can cover a much greater range of light intensities with less error than the other styles. In its construction it embodies a photoelectric cell which is connected to a sensitive electric meter. The meter is so scaled that the light value can be read off and the correct exposure

**INCIDENT LIGHT** reading is obtained by pointing the meter at the camera







AN INTERRUPTED TASK

A SUBJECT like this will cause you to distrust *both* types of photoelectric meters. You needn't, though, for the situation is rare and good results can be obtained by averaging several readings. Reflected light types will give the best answer—but neither will guarantee completely satisfactory results with color film. *Photo by R. W. J. Norton, A.R.P.S.*



PHOTO BY KAYE SLOANE

THE ONE SITUATION in which the incident light type meter must bow out and become a reflected light type. If you are located inside a building, in a canyon, on the shady side of a mountain—or in a woods, such as this—then

you should resort to an accessory and adapt your meter to reflected readings. With reflected light type meters which have been adapted to incident light use, it is only necessary to remove the adapter to obtain an exposure reading.

determined by consulting an easily operated calculating wheel. Most photoelectric meters have some means of baffling the light rays so that readings may be taken in both subdued and brilliant light.

Early photoelectric type meters were invariably made to take only reflected light readings for a number of reasons. First, the light reflected by a subject was the same light that entered the camera and it was believed sufficient to expose for this light only. Second, no simple means were available at the time for measuring incident light; third, since only black-and-white film was being marketed, greater accuracy than that afforded by the natural latitude in such film was not considered necessary.

#### The Wrongs of Reflected Light

The chief disadvantages of reflected light as a basis for exposure are the variables that influence a reading under any thing other than ideal conditions. Supposing, for example, that you set out to photograph a subject against a dark background. If you take a single reading from, let us say, the camera position, the dark background will influence that reading and the highlights in your subject will be burned out with over-exposure. This is because the background, being dark, gave a lower reading from reflected light than should have been used for the subject. To compensate for this low reading it would have been necessary to approach the subject and take an unshadowed reading of it alone. Oftentimes this is not possible.

In a like manner, if the background is extremely light and you expose for a reading taken at, or near, the camera position you will generally find that the subject has been underexposed because the meter recorded the light background and gave a higher reading than was required to portray the subject.

This condition holds true whether the picture is taken indoors or out, as long as the meter reading is taken from *one* position. For critical exposure, it is necessary to take two or more readings—one of the most brilliant highlight and one

of the deepest shadow and, perhaps, one of the middle tones. These readings are then averaged and the exposure meter adjusted to give a solution that will arrive midway between them.

An alternate method of using a reflected light type meter without resorting to several readings and striking averages therefrom has to do with the use of a neutral gray card. (See New Products, pg. 92.) Light reflected from a neutral gray card (which approximates the midway point between extreme light and dark portions of a scene) can be measured with considerable accuracy on a single reading. The usual procedure is to hold the gray card at the subject position, facing the camera. A reading is taken with a meter held close to the card—and since neither the background nor the brilliance of the subject can influence the reading, it is more accurate than a general reading of the scene. The chief drawback of this method is that it is cumbersome and slow.

#### The Measurement of Incident Light

In a manner of speaking, the gray card method owes a part of its success to the fact that a fixed percentage of the light the gray card reflected was *incident* light.

Today there are several exposure meters on the market which measure incident light. With one exception, they are meters that have been adapted to the integration of incident light by the addition of auxiliary means for taking readings. The exception is the Norwood Director, a meter originally developed for professional use, but which has recently been brought within amateur reach by redesigning and a new marketing policy.

The difference between the Norwood and the reflected light meters that have been adapted to incident light use, is at once apparent. The reflected light meters have a flat cell with a narrow acceptance angle. They cannot, because of this structural feature, integrate the spill light that may be coming onto the side of the subject.

However, in the design of the Norwood meter, all the inherent accuracy of the

incident light method of exposure determination can be realized. To begin with, the light receiver for the photo-electric cell is spherical in shape. It gathers the light that will affect the subject from all forward angles that face the camera. For the few conditions that arise where direct incident light cannot be easily measured, the meter can be converted for use in taking reflected light readings. The accessory is small and does not exceed the approximate dimensions of a stack of three half-dollars—which pays for the cost.

All that is required to use the meter is to point the Photosphere at the camera and read the correct exposure from the calculating dial.

The needle of the meter is well damped (a shock absorber action) so that there will be no indecision as to what reading it indicates. If the Photosphere is not *exactly* pointed in the right direction, no harm is done. Because of its use of incident light to arrive at correct exposure, this is the only meter with which you can take this liberty and still maintain a high degree of accuracy.

Now, let us see why this is so. Remember back in the first part of this article we said that the reflectance value of various objects remains the same regardless of the amount of illumination? That a dark and light object side-by-side will appear the same under all conditions if they are illuminated from the same source? That is your answer. With an incident light meter you measure the quantity, or intensity, of light that is falling upon your subject—not the amount of light that the subject reflects. In this way the readings are not affected by specular reflections.

And while we are talking about incident light readings with the meter pointed *toward* the camera, let's "scotch" the silly rumor that invariably crops up that you *must* take an incident light reading from the subject's position. The usual aside is—"How are you going to climb down into the Grand Canyon and up the other side to get an incident light reading?" This barb is two edged, and it is more cutting

**TAUGHANNOCK FALLS** is a difficult subject to photograph because it is located at the end of a deep canyon. For good color rendition in movies, it is necessary to make your set-up in mid-morning and await the best light. Problems for the still photographer are lessened somewhat because better control of exposure is possible. However, contrast here is so great that a slight error in taking a reflected light meter reading can cause serious over or under-exposure of both Ansco Color and Kodachrome film.

PHOTO BY BILL FICKLIN

for the reflected light meter user than for the owner of an incident light meter.

Let's compare the two. Supposing you *did* wish to picture the Grand Canyon and wished to do so with color film so that some of its magnificence could be captured for your future pleasure. How would you go about it with an incident light meter? Why, just hold the meter a short distance in front of the camera lens, read the meter, adjust your camera, and shoot. If you are shooting from hand-held positions, the meter reading is taken from where you are standing *as long as the light at your location is the same light that illuminates the subject*. Do you have to climb the canyon's walls? It doesn't appear so. If you are standing beneath a tree to take advantage of the shade, all that you have to do is step out of the shade, take your meter reading, and step back again.

For that matter, if you were using a reflected light meter, *you* would be the one to perform the mountain goat stunt of climbing the canyon walls—if you wanted a correctly integrated reading that would take all reflectance values into consideration. You could, of course, resort to the gray card method, but then the majority of scenes that you photograph would have to be exposed in this manner and this equipment would be in use most of the time. We're talking of color, remember.

#### The Wrongs of Incident Light

As we stated before, there are conditions where the use of the incident light meter requires an accessory, if you're after correct exposure. That condition arises

(Continued on page 141)





JUNIOR ON HIS STICK HORSE pointing his "six-shooter" at the outlaws affords an ideal medium close-up with sky background.



# COWBOYS AND INDIANS

By Edison Thomas

**T**HE SPELL OF A WESTERN movie thriller doesn't end when the audience leaves the theatre on a Saturday afternoon. For better or worse, mock six-gunplay and cowboy heroics still play a lead role in children's never-ending world of make believe. As amateur movie makers, we can produce a pint-size saga that stars our own offspring, and better still, will catch them doing something naturally and enthusiastically.

In short—a Stick Horse Opera.

Do you recall the essential points of a horse opera plot? First, the stagecoach carrying the heroine is held up. The hero appears—saves the day—chases the outlaws. "Love" interest begins. Outlaws capture heroine's father. Hero again saves day—this time kills outlaws in terrific battle. The kiss-clinch, with boos and aaahs from the balcony. Gallantry wins again!

Substitute a stick for a horse; lop a few years off the actors' ages, and we'll

**MASKED OUTLAWS CROUCH** with drawn guns as a stagecoach comes lickety-split around the bend. What better setting for movie action?



have a home movie. It won't win an Oscar, but our movie will draw a chuckle from the neighbors in the living-room audience, especially if we throw in some hot buttered popcorn.

The best still picture records of our children are completely "unposed" shots. They preserve that memory-elusive facial expression, or select an occasional choice event from the busy flow of a child's development. Movies can do the same thing, but to keep a home movie interesting it must have a plot. Why? Because a movie has *motion*. It begins, has a continuity, and ends. It's not a single image. Between the beginning and the end a problem must be solved, or our effect is that of a series of animated shots. A "shooting script" is the means a producer uses to insure continuity.

Before actually laying out the shooting script, here are a few points to consider.

We're primarily doing a burlesque. It will be serious business with the kids, and we certainly want to shoot the movie the way they play the game. That will be funny enough in itself to us. Our only job is to direct the action just enough to

hold the thread of the story. Such refinements as painted sets, elaborate costumes and props are not only unnecessary, but would probably strike your audience as a bit ridiculous. And if the hero of the cast happens to be scratching his backside in the midst of a crucial scene—so much the better.

Location: literally any place. Shoot some of the epic in the backyard, some in the front, on the porch, in back of the garage, a vacant lot, the rockgarden, up in the attic, down in the basement. A nearby park is a good spot. Best location of all is Uncle George's farm.

Ask Junior what movie he is going to see this Saturday afternoon. It may turn up with a title like "Fearless Roy Rides Again", but you can bet your best pair of Western boots that it's a genuine horse opera.

You say, "Do they still make those things?"

They do, and if Junior loves them so well produce and star Junior! And while you're at it, why not accompany the potential movie star in your family and see just why "Fearless Roy" is the idol of



**THE BARNSHED** at Uncle George's farm serves as a convenient cliff from which our hero foils the stage-coach robbery.



THE HORSE OPERA has a hole in it unless the hero produces his guitar and strums a romantic ballad to the rancher's daughter. Close-ups are ideal for this scene, and with the playing of a recorded cowboy song when you project, the movie receives a nice change of pace.

Junior and about a hundred other small fry who will jam the theatre that afternoon. Then too, if you can stand the shower of popcorn, exploding paper bags and the zillion and one other things that happen when a houseful of young humanity in perpetual motion gets turned loose, try to absorb a few pointers.

The story won't matter much. Basically they are all the same, and besides, Junior won't let you slip up. All you need is the gist of the action—you can pick up from there and practically ad lib your way through this proposed colossal horse opera—complete with stick horses.

Let word get around the neighborhood that you are filming a genuine western movie complete with cowboys and Indians, and your cast will magically overflow your backyard—usually in appropriate costume. Just in case you'd like Junior to stand out from the rest of the cast, perhaps a little

more thought should go into his costume. The cowboy suit he got for Christmas, if it lasted this long, will be swell. He should be able to find enough props from his play room, including cap pistols, to equip himself with the regulation two that "Fearless Roy" always carries.

If you need Indians an old feather duster and a few cloth headbands will work wonders, and most of the eligible extras will be glad to bare chests for the good of the cause.

The horses are broom sticks. For very young children horse heads can be cut from cardboard and tacked on for realism.

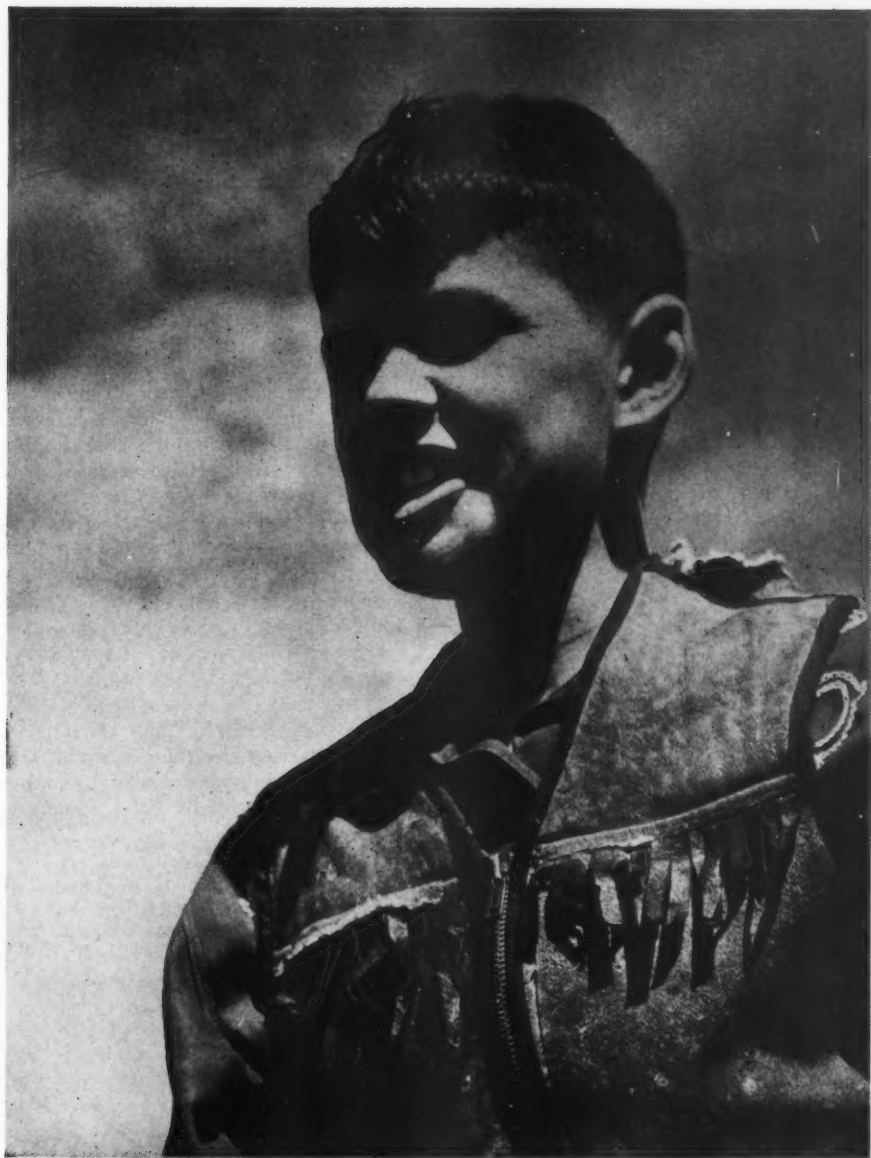
With a little ingenuity, Junior's coaster wagon can be converted into a stagecoach, or—if necessary—a covered wagon.

Almost the entire action can be filmed outdoors. Your wife will thank you for that. But if you must include indoor

*(Continued on page 137)*

**DRAMATIC MOMENT COMES** when Junior, as the hero, comes a-riding in on his trusty steed and foils the outlaws in their hold-up attempt. Cut action with close-ups to add interest. These can be filmed separately and spliced in.





WHEN JUNIOR SAYS "reach for the sky, podner!" you can bet he means just that. Whether it's in the script or not, there will be plenty of times when Junior will burst forth with his victory yell and bounce across the scene beating his broom stick horse.

# Outdoor Color Photography with the CC14 and CC15 Filters

BY SEYMOUR MILLER

ONE of the least publicized and most useful aspects of outdoor color photography is the use of the Kodak Color Compensating Filters Numbers CC14 and CC15. Color enthusiasts, in rapidly increasing numbers, are beginning to recognize the adaptability of these versatile filters towards correcting and modifying light to suit the tastes and purposes of the photographer.

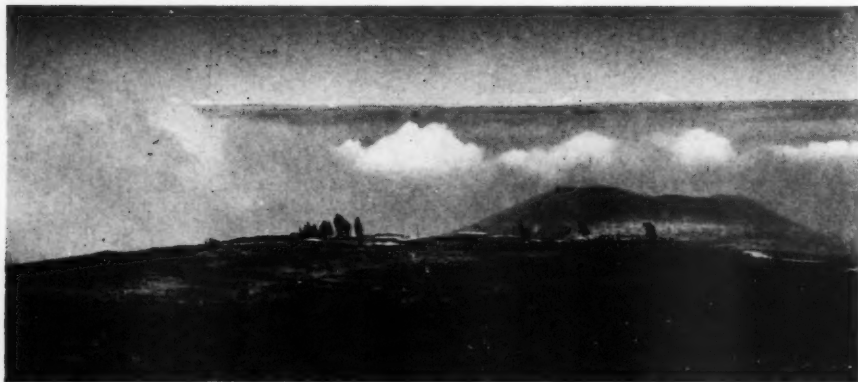
Color photographers have been told for so long that there are no filters to use in outdoor color photography, with the exception of the Pola-Screen, that many of them have become discouraged and have come to believe that they will never be able to control light quality with outdoor color film. The above statement is true to the extent that there are, as

yet, no filters available for outdoor color photography which will perform the exact same functions of such filters as K2, G and A used with panchromatic and orthochromatic emulsions. However, the CC14 and CC15 filters have certain special uses which will greatly aid the photographer in overcoming some of the perplexing problems of outdoor color photography.

The uses of these filters are three-fold:

- 1) They work to counteract the blue cast of color film in clear, rarefied atmosphere at relatively high altitudes, and in all outdoor scenes with expansive areas of blue and green.
- 2) They accentuate color mood of an already predominant color by making the over-all color balance warmer (yellowier).

**HIGH ALTITUDE** shot taken in Hawaii by Perry D. Griffith, is typical of the green and blue color composition which oftentimes goes too blue. Although the CC14 filter will reduce the blue cast, don't expect it to penetrate haze to register distinct details.







**WARMING** a cool scene such as this one by Emil Hinrichs, is a job for the CC14 filter with outdoor color film.

- 3) They add "warmth" to scenes which are excessively cool by reducing the tendency of color film to accentuate blues.

Here, at last, we are beginning to receive aid in solving four vexing problems that become the concern of the photographer once he has become determined to advance beyond the most elementary stages of color photography.

Let us look more closely into the uses of these filters and see how we may adapt them to everyday color problems.

#### Counteracting Blue Cast

All of us, at some time or other come across expansive scenes of water, trees and sky—color compositions which are predominately blue and green. Depending on the light and general atmospheric conditions, these scenes usually have a

blue cast which color films like. They "go for" this blue cast with such a vengeance that they are likely to shirk their duty in registering all other colors. What causes this blue haze? It is simply that excess moisture in the atmosphere produces a haze barrier that color films do not adequately penetrate. We see this as the "blue haze." Here we should be careful

---

\*Kodak Color Compensating Filters are available either individually (Series V, \$2.25—Series VI, \$2.80) or in a set of seven with case (Series VI, \$25.60—Series VII, \$30.50). The CC13, CC14, and CC15 are yellowish filters (for warmer rendering)—the CC3, CC4, CC5 and CC6 are bluish filters (for cooler rendering). Since the CC3, CC4 and CC13 filters are quite pale, no allowance in exposure need be made. Use  $\frac{1}{4}$  to  $\frac{1}{2}$  stop more exposure when using the CC5 and the CC14, while the CC6 and CC15 filters will require  $\frac{1}{2}$  to  $\frac{3}{4}$  stop more.

and warn that the use of this filter, although it will reduce the blue cast, will not appreciably cut through the haze to register distant detail. There are other filters available to achieve the same end, notably the Harrison Coralite C $\frac{1}{2}$ . Do not use a filter stronger than this or the CC13 or CC15 filters as your picture may result in an overall cast of the filter color which you may object to even more violently than the blue cast which you are trying to eliminate.

Still, we must use some caution with the filter for this purpose. Was your shot taken early in the morning? Remember that at that time of day the light is much "warmer" than it is in the middle of the afternoon. The air is much clearer early in the morning and much of the haze that appears later in the day is not yet with us. The thing to do is to decide for yourself whether or not you think the haze present is particularly objectionable. If it is, use the filter, the CC15 having a slight edge over its predecessor for this purpose. If not, leave well enough alone. A thoughtful photographer will always take careful consideration of atmospheric conditions, weighing them carefully with his planned composition.

#### Accentuating Color Mood

Another important use of these filters lies in "adding" color to scenes which are already of one predominant color by making the over-all color balance warmer. In depicting fall foliage and in photographing desert country in the Southwestern part of the United States, these filters become extremely valuable.

Last fall I decided that I would attempt to capture the pastel-brown color of autumn leaves. I wanted the scene to convey a feeling of "warmth" and autumn such as golden aspens high in the mountains are wont to do. Because of the general unavailability of color film until late fall last year, I reached the park only to find that my light yellow foliage had rapidly faded into a deep brown, crusting the leaves into a brittleness that greatly lowered their ability to admit translucent

light. I reasoned that the filter would "warm up" the color of the leaves to such a point that the resultant transparency would show a color of the intense golden brown color that I wanted. The resultant slide confirmed my every hope. What I had achieved was to successfully *alter* the color quality to correspond to my purposes.

In the Southwestern part of the United States there are many expansive colorful areas of desert country, limestone walls and sandstone cliffs. We are not always fortunate in being able to picture these formations at their best, even when conditions seem perfect. Isn't the sun shining? Isn't the atmosphere clear? Then why shouldn't your transparency, assuming you exposed it correctly, come out just as you actually saw the scene? The answer is that conditions were *not* right. You only *thought* that they were! When the earth is very dry, it reflects little color, especially when there has been no rain for a long time. On these dry, hot days the distance is likely to be diffused by heat waves. But, on the other hand, when these surfaces are wet or damp, the atmosphere is exceptionally clear and they reflect much *more* color than they do on warm, dry days. Since we cannot squat in one place for days at a time, waiting for conditions to change, we would do well in employing our Correction Filter to increase the color warmth.

In photographing flowers, a favorite hobby of millions of amateurs, these filters are likewise successful in warming up the color renditions to give a much more sunnier feeling. We must remember, however, that most light colors are highly reflective, and that some yellows reflect up to 95% of their own color. Therefore, there is no practical use of these filters to warm-up colors which are already highly reflective. Nature is already more efficient than our filters could ever hope to be. By giving other weaker and less reflective colors a greater chance to register in flower scenes where there is a predominance of blue and green colors, we can

(Continued on page 135)



ALBERTO MARX

COLOR MOOD may be accentuated, particularly when one color predominates. On dry, hot days in the Southwest, distance is likely to be diffused by heat waves. When the earth is very dry, it reflects very little color. Since you probably won't want to wait for rain to clear the atmosphere, use the CC14 or CC15 to warm the color balance.

JERRY ANSON



a way to better pictures

## ***Synchro-Sunlight***

By **EARL THEISEN**

ILLUSTRATIONS BY THE AUTHOR

**T**HE OUT OF DOORS portrait showing a subject squinting into the light is the expression photo finishers say they see most often. The enlightened photographer gets natural expressions by having his subject turn away from the sun and by illuminating the resulting face shadows with flash.

This method of wedding natural sunlight to flash is called "synchro-sunlight" photography. The term *synchro-sunlight*

means simply that natural sunlight provides the over-all illumination for a picture, but at the precise instant the shutter is clicked a flashbulb synchronized with the shutter illuminates the shadows.

### **Advantages of Synchro-Sunlight**

Before flash was introduced, reflectors were often used to throw light back into the dense shadow areas on a subject. Reflectors are cumbersome, and often fail

**SYNCHRO-SUNLIGHT** shot made with basic exposure system which was 1/200th second at F:11 at a distance of 6 feet. Illuminated shadow permits ready study of Linda Darnell's face.

**SAME SETTING** and position but a straight shot without flash fill-in. The same exposure was used. Here the deep shadows on the face are anything but complimentary to Miss Darnell.





REFLECTIVITY of sand, clouds, or other light-colored objects is often great enough to make the shadows transparent so that synchro-sunlight is not needed.



**FLASH FILL-IN** makes this kind of picture possible. Without the addition of flash, the shadow under the umbrella would be too dense to show what the model looked like.

to illuminate as much shadow area as might be desired.

With flash to provide shadow illumination, the photographer's control of lighting and posing problems is vastly improved. The background can be darkened to make the model stand out in relief, novel lighting effects are possible, and on days when there is little natural sunlight, artificial highlights may be made. Since there is no bright light in the subject's face until the split-second a bulb is popped, the model can pose with natural ease. The exposure will be made too quickly for any squint that may result from the glare of the flashbulb to register on film.

Synchro-sunlight pictures can be made with any camera that has a flashgun synchronized with its shutter. On the yardstick of "costs and results," they are worth it.

#### Basic Exposure

Every photographer has his own pet system for shooting synchro-sunlight pictures, but in the final analysis one system is much the same as the next. With Super Pan Press film and No. 5 flash bulbs, I use a basic exposure of F:11, 1/200th second at 8 feet flash-to-subject distance for normal sunlight. This basic exposure, I might add, takes for granted the use



of a slow, fine-grain film developer such as Microdol or Ansco 135.

Variations from my basic exposure are made in accordance with the specific results desired. If a shutter speed of 1/100th second were used at F:11, longer exposure would be given the sunlight while the flash, of course, remains the same. This would result in darker shadows than were obtained with the original basic exposure.

If, on the other hand, it is desirable to make the shadows lighter, the flash may be moved in closer to the subject. If moved in to a distance of, say, six feet,

the shadows become very transparent, the sky begins to darken, and the foreground subject or anything near the flash becomes lighter in tone. The closer the flash approaches the foreground subject, the more it tends to overpower the sun. This being the case, exposure at shorter distances is based upon the flash instead of the sunlight—particularly when the sunlight is not intense.

For close-ups or when the flash is nearer than 8 feet from the subject, a smaller F number must be used; otherwise the subject's face will become over-exposed and

**LOW SUNLIGHT** may be too weak for good photography. Artificial highlights on Jeanne Crain were obtained with multiple flash. One bulb was at the camera, the other at the end of an extension held in approximately the same position as that of the sun. This flash should be about 20% closer than the one at the camera.



chalky. If my basic exposure is F:11 at 200th second at 8 feet and I move in for a close-up at 4 feet, my stop is then F:16, or even F:22. This of course produces under-exposure for the sunlight, hence the background and sky becomes darkened.

If the same effect of a darkened sky or background is wanted in longer shots, the camera may stay back while the flash is moved in by means of an extension cord. Again I want to point out that there is great flexibility and little chance of failure. I would even go so far as to suggest that for the first try you simply put a bulb in the battery case and shoot a picture the same as you would if your exposure was based upon ordinary sunlight. Whatever the result, it is almost certain to be a great improvement over anything done without flash. As you become adept with flash many novel and interesting lighting effects are possible.

#### When is Flash Called For?

The nature and hardness of natural sunlight varies, and an exposure meter is valuable for determining whether or not flash should be used to illuminate shadow areas. A meter reading should be taken on both the highlight and shadow side of the subject. Although most films boast a latitude great enough to take care of just one stop meter-reading difference between highlight and shadow areas, more than one stop difference calls for synchro-sunlight technique. A difference of two stops, for instance, might not be too objectionable in over-all effect without synchro-sunlight, but the shadows would in all probability be dark enough to obliterate face details.

The above is based on a lighting effect where the sun is at right angles to the camera and produces areas of shadow over important portions of the picture.

For backlighting effects where a shot is made almost into the sun and all important parts of the picture are in shadow, the sun cannot be considered and exposure should be made according to the proper flash guide number. We'll come back to the proper use of guide numbers for synchro-sunlight pictures in a moment.

At the beach where there is light-colored sand, or on light-colored ground, surface reflection fills in so much that synchro-sunlight is often unnecessary. The same applies if there is a white building or a large area of white clouds to reflect light back into the shadows of the main subject. Meter readings must be made from within a few inches of the subject on both the highlight and shadow areas, being certain that no reflections or shadows from the hand or other objects strike the area being read. By far the best way I know of to obtain such a reading is for the photographer to take a meter reading from both the highlight and shadow side of his own hand.

A meter variation of more than one stop between the highlight and shadow areas indicates the need for a flash fill-in. This is particularly true in shooting color—when bluecoated No. 5 B bulbs should be used.

When the sun is near the horizon, it is best to remove the flash from the camera and hold it two or more feet to one side to improve the modeling in the subject. If the sunlight strikes the subject from one side, it is best to hold the flash on the opposite side, being careful not to move it in too close in relation to the weaker and softer illumination of the sun. It is impossible to define precisely what "too close" may be because everything hinges upon the intensity of the sunlight. This is something each of us must learn to judge from experience.

On overcast days or perhaps at dusk, artificial sunlight effects are made by using two flashes in synchronization—one at the camera and one at approximate right angles. The position of the sidelight should strike the subject from the same angle as would the sun, and it should be about 20% nearer the subject than the flash at the camera in order to make the highlights intense. Inasmuch as this will make the sky register dark, due to the lack of sunlight, it is generally best to shoot down on the subject for a picture of this sort. A downward shot cuts out the dark sky and utilizes

(Continued on page 128)



**SAVED** by synchro-sunlight. A storm was coming up across the canyon, but the effect of a spot of sunlight on Linda Darnell was obtained

by one flash on a long extension. Since drama was needed here no fill-in flash was used at the camera to cut into contrasty shadows.



## Plastic Safety Shield For Midget Flash Reflectors

By Jack Wilson

**M**IDGET FLASH LAMPS are at their economical best for close-ups in both color and black and white photography. Modern flash lamps have excellent inside and outside protective coatings and rarely shatter if handled with reasonable care. To avoid the slightest risk of spraying the subject with glass particles some photographers use a shield on their flash reflectors. An efficient plastic shield for your midget flash lamp reflector can be

made in a single evening. This shield has a double value: clear plastic for safety, blue plastic for use in flash photography with daylight color film.

Plastic material is surprisingly easy to handle—even for a novice worker like myself. The only tools needed are those usually found in the kitchen tool drawer. A jig saw (the light hand-type with a thin jeweler's blade is best), a small twist drill (about 3/32" diameter will do), and a

pair of pliers make up the tool list. You'll need a scrap of sandpaper for smoothing the edge of the shields, though one of the wife's manicure emory boards will be a lot handier—if she'll let you swipe it. And you should have gloves of some kind to wear when forming the hot plastic.

If you make your set of shields from blue plastic, you can save the extra cost of blue flash lamps for daylight color photography. Most plastics dealers stock 1/16" sheets of transparent blue Lucite, which I have found to be just right for filtering the light of white flash lamps for fill-in use with daylight color film.

In selecting the plastics, a blue correction filter for color photography (such as the Harrison B-2) may be used as a color guide, or if that isn't readily availa-

ble, a scrap of the blue lacquer coating from a "B" flash lamp will do. If your plastics dealer doesn't have the right color of plastic in stock, don't get discouraged. You can probably dye clear plastic to the proper tint. The new cold-dip dye is especially easy to use. The plastic stock for the shields costs about thirty cents for the clear; about a nickel more for color.

If diffusing screens are desired, a set of the shields may be prepared by lightly sandpapering the inside surface. Perhaps a more practical all-around method of diffusing the light, or controlling its intensity, is to cover the flash reflector with a thickness of clean white handkerchief. The shields conveniently hold the handkerchief in place and one thickness of cloth cuts the effectiveness of the light about in half.

**THE PATTERN** for the midjet flash lamp reflector protective shields may be drawn directly on the paper which covers the 1/16th" sheet plastic stock. With the focusing type of reflector shown, or any others where the flash lamp projects slightly beyond the reflector rim, the diameter of the shield blank should equal the outside diameter of the reflector plus about 1/4" to allow for the convex curvature which is necessary so that the shield will clear the end of the lamp (this is 5 3/8th" for the reflector illustrated). When a flat shield may be used, the diameter of the blank should be the same as the outside diameter of the reflector. Three 1/4" by 1/2" tabs are equally spaced around the circumference of the blank (120 degrees apart if a protractor is used to make this measurement). Mark the centers of two of the tabs for 3/32" diameter holes through which a rubber retaining band will be tied.

**THE SHIELD BLANK** may be cut out with a hand jig saw. One of the thin 6" jewelers saw blades will cut through this thin plastic stock with amazing ease. Make all cuts just outside of the pattern outline, being careful not to cut into the tab portion, as the plastic breaks quite easily along score marks. If no saw is available, the outline may be scored with a scribe, or other sharp tool, and the excess plastic broken away.



*Illustrations by the author*





**DRILL TWO TABS** which are marked for the  $\frac{3}{32}$ " diameter holes. Since the plastic is rather soft, either a hand drill, or pin vise will do to hold the twist drill.



**SAND THE EDGES** of the blank smooth using course, then fine sandpaper. Manicure emory boards will be found very handy for this job. Sand to the pattern outline with the rough side of the emory board, and finish with the fine grit surface. The protective paper may now be removed from the plastic blank.



**THIS IS HOW** the finished blank for the shield appears. For reflectors from which the flash lamp protrudes the next step is to form the blank into a shallow convex form. If a flat shield may be used, the next step is the bending of the tabs to fit the reflector rim.



**THE PLASTIC BLANK** may be softened for bending by heating it for a few minutes in an oven at a temperature between 250 and 300 degrees fahrenheit. If you do not have ready access to an oven, this thin plastic may be heated sufficiently for the simple bends required by dipping it in a pan of boiling water. Be sure to wear gloves while handling the hot plastic. The blank may be pressed over the back of a saucer to form the convex curvature. If it is not convenient to press the plastic into shape with the reflector as is shown here, any other similar round object will do. If you do not arrive at the correct shape the first time, the plastic may be re-heated and re-shaped repeatedly. The convexity should be kept at a minimum—just enough to allow bulb clearance—so that an objectionable "lens" effect will not result.

*(Continued on page 130)*





You can tell at a glance they're

## Kodachrome Prints

THERE'S something about a Kodachrome Print . . . a crispness, a sunny brilliance, a technical excellence . . . that stems naturally from Kodak's years of work with color. As you know, Kodak introduced color into popular photography with Kodachrome Film and, subsequently, Kodachrome Prints. It would be strange if Kodachrome Prints weren't pretty wonderful, wouldn't it? Kodak research men have lived with color so long; Kodak technicians have made so many color prints.

The bigger the Kodachrome Print, the more beautiful, of course. Treat yourself to some of the "3X" size—3 x 4 $\frac{3}{8}$  inches—illustrated here. Price, only 85 cents each—six or more from the same original, 75 cents each. Kodachrome Prints, you know, can be made from either 35mm. or Bantam original color transparencies. Four standard sizes, at 60 cents to \$5.75 each (minimum charge per order, \$1).

It's Kodak for Color

**Kodak**

# BULLETINS

## NEWS OF KODAK PLANS AND PRODUCTS

### FLASH, 1948

TWO big trends characterize postwar amateur photography. One, the greatly expanded and still expanding use of color. The other, a startling increase in flash photography, out of doors as well as indoors.

Amateur flash, before the war, had already achieved a brisk jog trot. Since the war, the trot has turned into a sprint. New Kodak cameras with built-in flash synchronizing mechanism . . . quantity production of handy flash devices, such as the Kodak Photo Flasher . . . increasing supplies of high-speed midget photoflash lamps . . . these, and many other factors, have contributed.

Probably the greatest impetus to amateur enthusiasm has been the steady improvement in flash technique, spearheaded by professional and press photographers. Superb published work, both color and black-and-white—produced by means of extension flash, multiple flash, and flash lamps used as supplementary sources to balance daylight outdoors—has pointed the way, out-

lining new fields of pictorial opportunity that are open only to users of this "portable sunshine."

#### Why Midget Lamps?

Emphasis today is on midget lamps because they are the lamps for amateur flash photography. Entirely aside from their convenience and economy, the small lamps offer technical advantages. Because they provide a compact, concentrated source of light, they permit a reflector design of great efficiency.

Consider, for example, the reflector used on the Kodak Flasholders and the Kodak Photo Flasher. Deep, compact, and convenient, this reflector is optically designed to utilize all the light of the small lamp to best advantage—concentrating it within the picture area instead of spilling it all over the landscape. A No. 5 lamp, in this reflector, yields full exposure of subjects *thirty feet away*, on Kodak Verichrome or Kodak Plus-X Film, at *f* 4.5 and 1/100. While the larger No. 11 lamp puts out twice as many

lumens as the No. 5, it requires the same lens and shutter settings when used in such a compact reflector. So, the user of the larger lamp either must carry a more bulky and less convenient reflector—or must waste all the extra light and the extra cost.

#### New Flashholder Aids

Two new accessories have recently become available to Flashholder users. One is of interest to owners of Flash Kodak cameras—such as the newer Kodak Monitor and Vigilant Cameras, the newer Kodak 35 Cameras, the Kodak Reflex and Medalist II Cameras, and the Kodak Flash Bantam Camera, *f* 4.5. This is a 3-foot extension, which permits the photographer to hold the Flashholder at a distance from the camera, below, above, or to one side, for better subject modeling in close-range shots.

The other, called the Kodak Flashholder Adapter, is designed to adapt the Kodak Flashholder for use with flash shutters which have two-prong flash holder connectors. Many press-type cameras are equipped with flash shutters of this type.

For those who wish to use flash, but can employ neither a synchronizer nor a Kodak Flashholder, the inexpensive Kodak Photo Flasher provides a handy solution. This compact reflector unit accepts No. 5 and SM lamps, and extends the advantages of flash photography to any camera that can be set for "time" or "bulb."

### f/1.4

THE first Kodak lens to bear the name "Kodak Cine Ektar"—a 25mm. lens with the enormous relative aperture of *f* 1.4—is now in production.

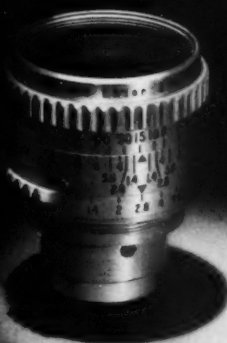
This superb new lens is for 16mm. motion picture cameras. Here are some of its features:

Seven glass elements, combined into four components; all glass-air surfaces Lumenized; aperture range from *f* 22 to *f* 1.4 (twice as fast as an *f* 2 lens); unusually flat field; minimum distortion; excellent color correction; no appreciable shift in focus when stopped down to minimum aperture. Focusing range from

infinity down to 12 inches from the film plane. Widely spaced focusing scale marks and depth-of-field scale marks, with more markings than are normally provided. Lens stop markings *uniformly spaced* (no crowding in the small aperture scale). The front element of the lens is positioned deeply, so that the barrel itself serves as a lens hood. Barrel construction of duralumin (total weight of the lens is about half that of the 25mm. Cine-Kodak *f* 1.9 Lens).

Every dyed-in-the-wool 16mm. enthusiast will want an early look at this lens. For color, and for difficult light conditions, it is the movie maker's lens.

"Kodak" is a trade-mark



# JUST ENOUGH—ALWAYS FRESH

**Kodak Tri-Chem Pack Gives You Developer, Short Stop, and Fixer, All in One Small Inexpensive Package**

FOUR airtight, heat-sealed metal-foil packets—full of factory-fresh, ready-measured chemicals to make developer solution, stop bath, and fixing bath—just enough for two average-size rolls of film or several dozen album-size prints—to be mixed in a jiffy, used, and then discarded . . .

That's the new Kodak Tri-Chem Pack—a 20-cent handful of helpfulness, simplicity, and convenience.



▲ Watch for this Kodak Tri-Chem Pack display.

At left, the Kodak Tri-Chem Pack and its four packets. At far left, the two components of Kodak Universal M-Q Developer; next, the Kodak Universal Stop Bath with Indicator; at right, the Kodak Universal Fixer. Each is sealed in metal, and labeled a different color for quick identification.

Stack a half dozen Kodak Tri-Chem Packs on the shelf alongside your processing trays. They won't go stale; the little metal-foil packets are airtight and secure. They'll be fresh and ready whenever you reach for them—and after you've used a few Kodak Tri-Chem Packs, you'll be reaching more and more.

## FIVE GREAT VIRTUES

CONVENIENCE, simplicity, economy, freedom from risk, and certainty of fresh solutions—these are the five great virtues of the Kodak Tri-Chem Pack.

Simplicity is absolute. The A and B packets of reliable Kodak Universal M-Q Developer yield eight ounces of working solution. The packet of Kodak Stop Bath with Indicator makes eight ounces; so does the packet of Kodak Universal Fixer. An ordinary eight-ounce water tumbler can be used for mixing; you don't even need a measuring graduate!

Economy is noteworthy. The pack is just right for an evening

of contact printing, or a couple of rolls of film that you want to see right after the day's snapshooting—and it costs only about as much as a pack of cigarettes. And there's no leftover solution to be stored, to be discarded later because you're not quite sure of its strength.

Convenience is great, especially when you're in a hurry. All three working solutions can be made quickly and neatly. And when the job is done, you simply dump the Tri-Chem Pack solutions into the sink—and you're all through!


### See your Kodak dealer

KODAK products are sold through Kodak dealers, any of whom will be glad to complete the descriptions of Kodak products which are mentioned in these pages. Usually, too, they will give you opportunity for firsthand inspection of the advertised items.

And in matters of general photographic information your Kodak dealer will be found to be soundly informed.

**MIX IT FRESH—USE IT FRESH—DISCARD IT**

# Kodak



**He's looking for trouble...**

... as the lab men would say, "making an analysis to determine the deterioration rates of the various components of a new formula."

To put it more simply—he's uncovering clues that lead to improved developers... more efficient fixers... and those handy darkroom trouble shooters that supply the answer to special processing problems. He's helping you get better negatives, better prints...

... with better-than-ever preparations from Kodak's famous Research Laboratories... Eastman Kodak Co., Rochester 4, N. Y.

### **At your Kodak dealer's:**

**Kodak Anti-Fog No. 1**... Add to developer when films or papers tend to show fog from age or unfavorable storage... or have been stored between exposure and processing.

**Kodak Hi-Temp Hardener**... Use before developing for maximum protection of films when necessary to process at higher than normal temperatures.

**Kodak Anti-Calcium**... Prevents or minimizes formation of hard-water precipitates in all developers except caustic type... keeps solutions clear... helps prevent scum on negatives, scale on dark-room equipment.

**Kodak Photo-Flo**... A wetting agent that reduces surface tension of water and permits it to run evenly off film and paper surfaces... prevents water marks or streaks during drying.

**Kodak Anti-Foam**... Counteracts tendency of photographic chemicals to foam and froth when agitated... minimizes air bells... prevents spots and stains on emulsions of film or paper.



**Kodak Chemicals**

Mobile batch bins facilitate testing and packaging of Kodak Chemicals...

# **Kodak**



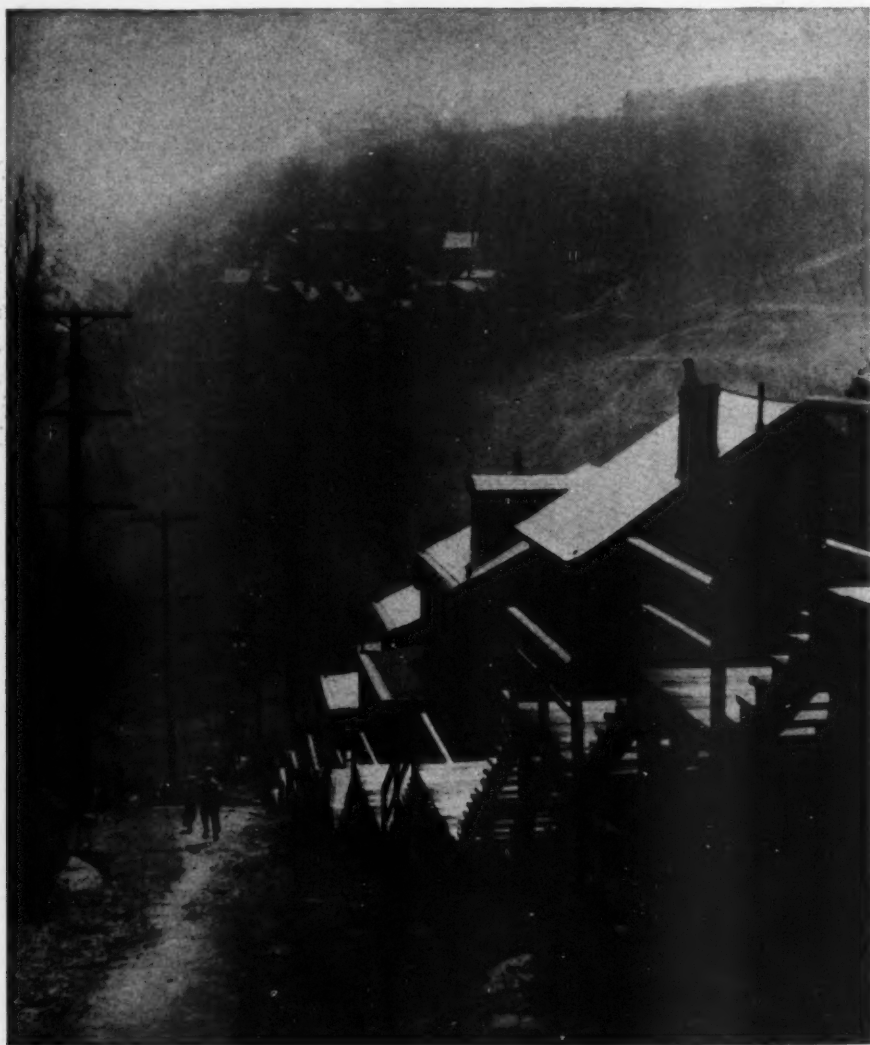
# Picture Section

JUNE

CHESTER — BLACK STAR

PITTSBURGH VISTA

O. E. ROMIG, A.P.S.A.







**DOME DESIGN**

**PAUL K. PRATTE, F.R.P.S.**



BOX CAMERA PORTRAIT

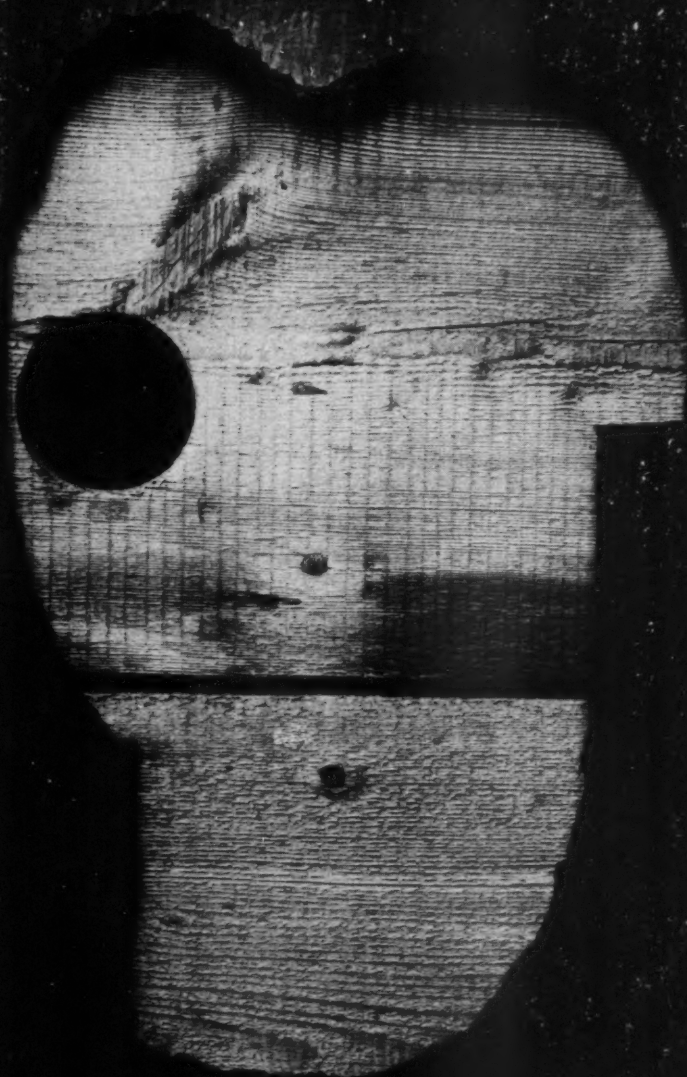
HAL ROBERTS, A.R.P.S.

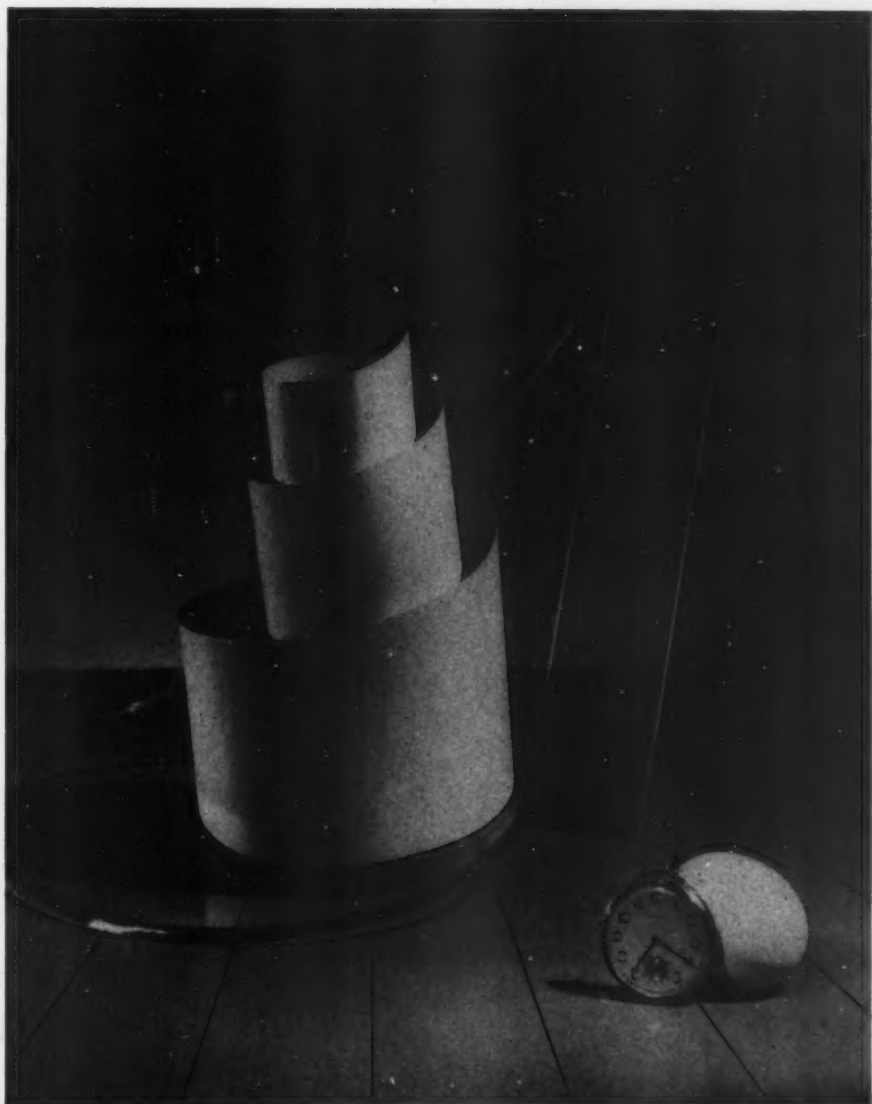
"WHAT SHALL I SAY?"

R. W. J. NORTON, A.R.P.S.



AARON SISKIND





FORMS AND RHYTHM

HARRY K. SHIGETA, F.P.S.A.



J. STRAIT



TOSH MATSUMOTO





MILTON B. LIPTON

BILL MERIWETHER







MARK WARREN



**VICTORIAN STYLE BATHROOM.** The type of picture most in demand at the moment is the gay nineties fashion-plate, illustrating what women's clothing designers are calling "The New Look," which Bettmann has had no trouble in proving to be as old as the hills.



*"You may talk about split-second action all you please, but the most fascinating story within reach of anyone's lens today is the history of Hometown, U. S. A., and much of it will never be preserved if the cameras do not start clicking."—*

## OTTO BETTMANN The Backward Photographer

By JHAN AND JUNE ROBBINS

Illustrations from the Bettmann Archive

WHEN OTTO BETTMANN came to America in 1933 and began to tramp from one picture editor's office to the next, he received many an offer for his beautifully fitted Leica camera but none for the five suitcases full of photographs that he had chosen to rescue from Hitler Germany instead of his clothes.

"Not bad," was the usual evaluation, "but what do you specialize in?"

Sadly, the scholarly, placid-faced Bettmann realized that in America everybody had to be a specialist. In order to separate himself distinctly from the great mass of shutter-clickers, he needed a classification so that editors would think of him in connection with particular needs. One photographer friend told him proudly that he himself had specialized in shooting pictures of Russian wolfhounds and that every magazine in the country had his name filed under "dogs."

Bettmann knew what his specialty was, all right. The majority of his photographs were camera studies of ancient paintings, of murals on monastery walls, old prints



World-Telegram Photo by Al Aumuller  
OTTO L. BETTMANN in his 57th Street study.

and woodcuts, calendar art, maps, and cracked, fragile documents. All were carefully preserved on film, but what to call them? Otto Bettmann's knowledge of the English language was slight. With some difficulty, he searched a dictionary, seeking exactly the right term. The next week he triumphantly distributed to editorial offices a stack of business cards that proclaimed him to be, Otto Bettmann—The Backward Photographer.

In fifteen years, from this somewhat confused beginning, the Bettmann Archive has grown to include more than a million historic prints which are contained in four large, high-ceiled rooms in an old-fashioned brownstone house on New York's East 57th Street. Bettmann himself, however, has consistently resisted classification. Although, today, every editor knows his telephone number, he is just as likely to be called on for a series on the art of kissing (his records trace the pastime back to Charlemagne in 814 A.D.) as for his distinguished file on Medieval methods of surgery and bandaging.

OLD CITY VIEWS offer a fascinating field of study for the modern photographer. They are a natural for "now and then" presentations. Few people would guess the location of this scene—

Significantly, in the photographic field, Bettmann's work represents a trend away from the random click-click of the candid camera which Bettmann thinks has been subjected to a great deal of over-emphasis.

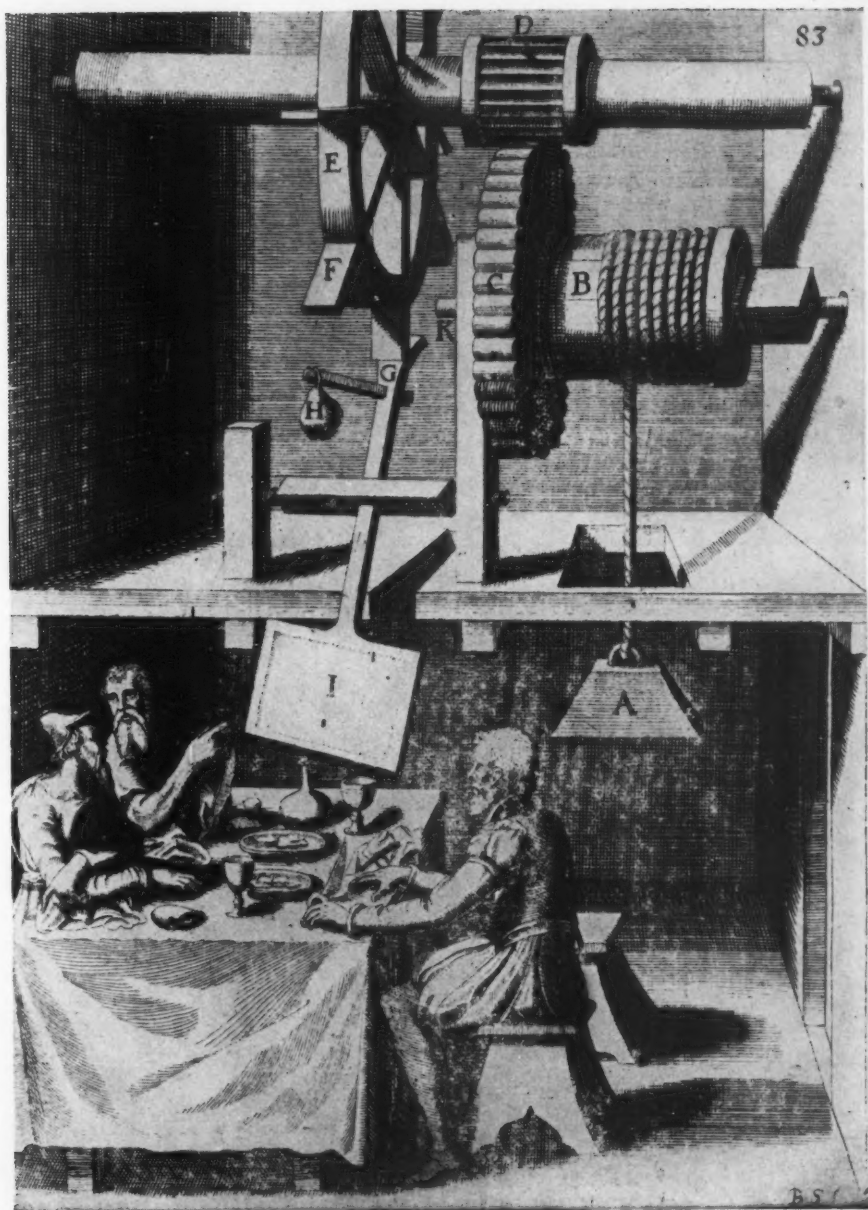
The word "photographer" he thinks, has come to mean a fellow whose idea of a good picture is to slip up on someone while he is choking to death on a graham cracker and take a snapshot of his tonsils.

The camera could earn a living for a great many more people, Dr. Bettmann believes, if it were less romanticized and the man behind it more willing to learn

**PERENNIAL BEST-SELLER** in Bettmann's file is this air-conditioning device of 1664, (*opposite*) designed by engineer George Boeckler—long before Rube Goldberg. This copper engraving has great interest for air-conditioning manufacturers, power engineers and rope specialists. We suppose the weight (A) drives ventilating fan (I) thus permitting the gentlemen to dine in comfort. It's a far cry from this complicated mechanism to our compact modern air-conditioning, yet the idea of increased home comfort is clearly expressed here.

called the world's busiest thoroughfare—the corner of Fifth Ave. and 42nd St., New York. The structure at the right is the old Reservoir, now the site of the New York Public Library





AIR-CONDITIONING—1664



**QUINTS AND BALLYHOO**—200 years ago! Five children were born to the wife of a Dutch peasant in 1719—and an unknown native artist recorded the event for posterity. We see here the surprised father's first glimpse of the new arrivals. (Four of the children died soon after, but were not interred for several weeks due to the universal interest that forced the parents to exhibit the quintts at a profit.) Little did Otto Bettmann know that he had discovered a true picture scoop when the shutter of his Leica clicked. In 1933 when the Dionne Quintuplets were born, this print became a best-seller.

organization, selectivity, and the principles of editing and indexing. The archive is a sharp contrast to the sloppy "subject" index of most photo morgues, where pictures are often mis-filed and lost forever. Bettman can put his hands on any one of his million prints in 30 seconds. Some are filed under as many as 6 different categories, including date, artist or engraver, scene, type of activity, etc., and a thumbnail-sized copy of the print is affixed to each index card.

Bettmann has been accused of trying to compete with the Library of Congress and, indeed, the Archive itself has the atmosphere of a private museum. Hand-tinted prints from the collection hang on the wall. Hushed quiet prevails—customers

are inclined to tiptoe. Dim light from the aristocratic residential street outside is aided by lamps that shed a soft, yellow glow. Even the plain, straight-backed office chairs in which you may sit for hours, browsing through files, appear antique rather than businesslike.

Antiques, as a matter of fact, are in the family. His attractive, American-born wife, Anne Gray Bettmann, a well-known antique dealer, helps him with much of his research.

Education is Dr. Bettmann's forte. He looks the part of a scholar, with his slightly stooped figure, balding hairline, eyes twinkling above a bowtie, handkerchief flowing from the breast pocket of neat, sternly conservative suits. His voice is soft, rounded with a slight accent, and painfully precise in its choice of words. Now in his forties, he was once director of the rare book department of the Berlin State Art Library. He became an historian, perforce, because he was badgered daily by students demanding bibliographies on such obscure subjects as Eating Habits in the Era of Louis IV and Dental Surgery during the Early Greek Republic.

Digging into the book shelves, he dis-

covered that there was little that artists and engravers of the past had left to the imagination—they had made pictures of almost everything. Trouble was, the pictures were scattered, sometimes through two or three hundred volumes. More evidence was not even between covers but engraved on cemetery headstones, painted on the crumbling walls of mansion and monastery, or buried among the musty records of church and state.

The idea of pictorial history, had intrigued him long ago. As a child of ten, he had once presented his father, a well-known surgeon, with a volume titled "A Pictorial History of Medicine by Otto Bettmann Jr."—a text which later proved to have been abridged with paste pot and scissors from his father's 1000 volume medical library. Later, the idea occurred to him again. Carrying a bulky copy camera and a more mobile Leica, he toured 15 countries, snapped 12,000 photo records of priceless documents and paintings. Today, the Bettmann Archive contains, in many

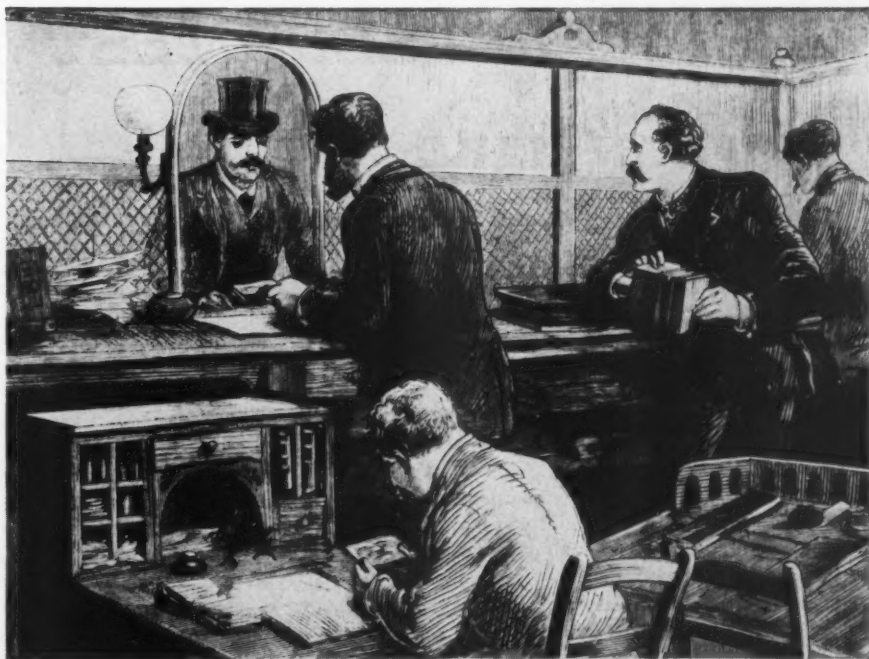
cases, the only existing historical records of European towns which have virtually been wiped from the map.

It is this task, although minus the forebodings that shadowed his work a decade ago, that Bettmann would assign to this country's amateur cameraman. You may talk about split-second action all you please, he declares, but the most fascinating story within reach of anyone's lens today is the history of Hometown, U.S.A., and much of it will never be preserved if the cameras don't start clicking.

Easiest job to tackle is the profile of the small country town or New England village where the population and the physical structure have remained more or less permanent through the years. The

*(Continued on page 116)*

**ASSIGNED** to do a photo-history of check forging, Bettmann turned up this print published in the *Police Gazette*. Caption reads: For "Queer" Characters: The Chemical Bank, New York, employs a special photographer to "spot" doubtful presenters of checks to bearer. 1885.







# A CRITICAL LENS TEST

## YOU CAN MAKE

by Eugene M. Hanson

Photos by Cecil Charles

**DO YOU KNOW**—not by hearsay, but of your own knowledge—at just exactly what apertures your camera lens has maximum sharpness of definition?

If you have several lenses and are particular about sharpness, can you tell which lens to keep and which to sell to others perhaps not so fussy?

If you are planning to buy a new lens, with or without a camera, would you like to be certain of getting one with extremely fine resolving power?

There is a quick and easy way for you to get all the answers to your questions

about the sharpness of lenses, and yet handle the whole thing right in your home, perhaps making yourself the local authority on lens quality. By this method you can calculate the resolving power, in lines per inch, of any lens.

### Equipment Needed

The equipment for a lens checkup will cost you about four dollars, and most of this cost will be for a small microscope. The tubular type, giving about 30-power magnification, is adequate. Such microscopes are sold as toys, and can usually

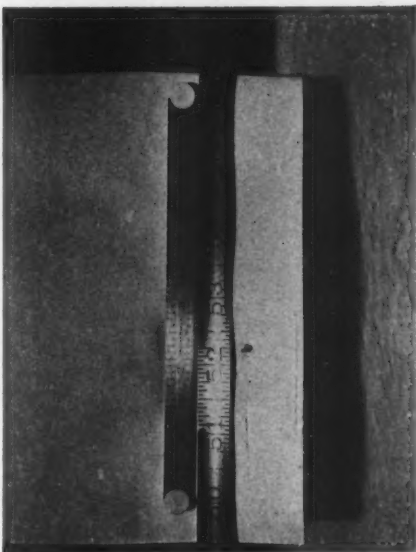
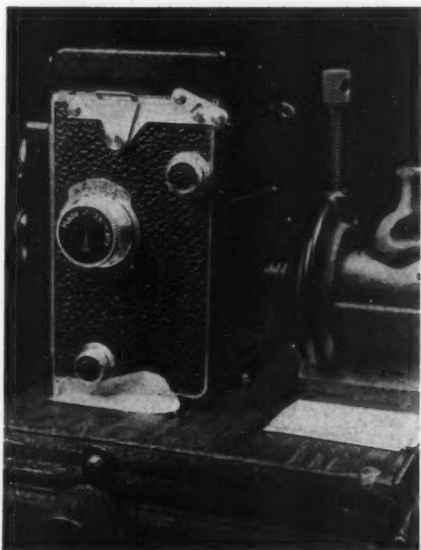


be found in novelty or toy stores. If you can't find one there, you can have one ordered by any hardware merchant, or you can order one from a mail-order house.

Besides the microscope, you will need a steel scale graduated in hundredths of an inch. This can be purchased from any hardware or tool store. You'll also need a bright light. A spotlight is best, but a photoflood, or a regular light bulb of high-wattage, will suffice.

A spirit level and a tape are other pieces of equipment which will make it easier to line up for the test, but with a little ingenuity you can get along without them. There's nothing complicated about the procedure with this equipment, but precision is called for. If you follow the instructions carefully, you'll find it easy to make the tests, but if you neglect any of the important details, the entire test will be a failure.

**FOCAL POINT** for the microscope, in lining up for the lens test, will be the spot which the middle of the film would occupy if it were in place and the back of the camera closed. You will be able to find this spot by working in a darkened room and noting where the beam of light from the lens converges into a point. This point is the focal plane of the lens.



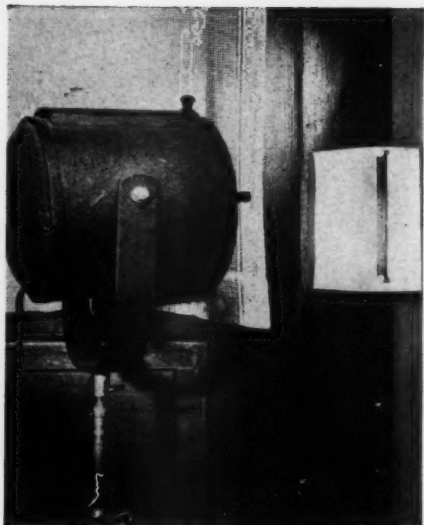
**MEASUREMENT**, rather than guesswork, will save you needless effort as it is the quickest and easiest method of lining up the steel scale and the lens to be tested. The middle of the scale and the center of the lens must be the same distance from the floor. By so placing it, you will be able to find the target with the microscope without too much difficulty.

#### Making the Tests

Tests must be made either at night, or in a room which can be almost totally darkened in daytime. Preferably, the room should be large enough to permit setting up the microscope fifteen or twenty feet away from where the scale is mounted. If your largest room isn't long enough, set up the scale on a wall in one room and put the microscope in another room, sighting through an open door.

The problem in making the test is to focus the lens in question on the scale and to examine the image projected by this lens with the microscope. Since the scale is graduated in hundredths of an inch, you can accurately calibrate the resolving power of the lens.

The microscope and the lens should be mounted firmly on a table, desk, or other solid support, with the lens pointed at the steel scale fifteen or twenty feet away, and



**BRILLIANT LIGHT** at extremely close range will make the job of finding the scale with the microscope much easier. Weaker light can be utilized but focusing will be much harder. Keep light at an angle to reduce reflection.

with the microscope focused on the focal plane of the lens. No groundglass is necessary or advisable, since the microscope can be focused on the aerial image cast by the lens.

The image of the steel scale will be so small at this distance, however, that it will be hard for you even to find it, much less examine it critically, unless you follow a precision procedure. The method of mounting the scale, therefore, is important.

#### Mounting the Scale

The ideal way is to mount the scale on a sheet of white paper against a dark wall. Lacking a wall of this shade, you should provide some sort of dark-colored background for the paper—particularly if you plan to illuminate the scale with any light other than a spotlight.

If you use a spotlight for lighting, focus the beam to the smallest spot possible, and bring it close to the scale at an angle of 45 degrees. This angle will keep reflected light from bouncing toward the lens.

One other item regarding the mounting of the steel scale is important—and that is that it be placed at exactly the same distance from the floor as the middle of the lens which you are testing. Careful measurement of this distance will make later stages of the test much easier.

#### Why a Darkened Room?

The reason for working in a darkened room will be apparent as soon as you try to focus the microscope upon the image of the scale as cast by the test lens. In the dark, you will be able to see the cone of light which the lens casts and focus the microscope on the apex of this cone.

It will take a little juggling to find the exact part of this cone which picks up the scale, because it is a tiny area at this distance.

#### The Lens and Microscope

The best method of keeping the juxtaposition of the lens and the microscope under control is to rest the camera, or the lens mount, on the table and then clamp the microscope down at just the right height to pick up the middle of the cone, leaving the lens free and movable for focusing. A clamp is the best means of holding the microscope down, but liberal amounts of scotch tape can be made to serve the purpose, if absolutely necessary. Sheets of paper cut into small squares make a good base for the microscope, since they make it easy to raise or lower the point of focus by removing or adding sheets. (See title illustration for details.)

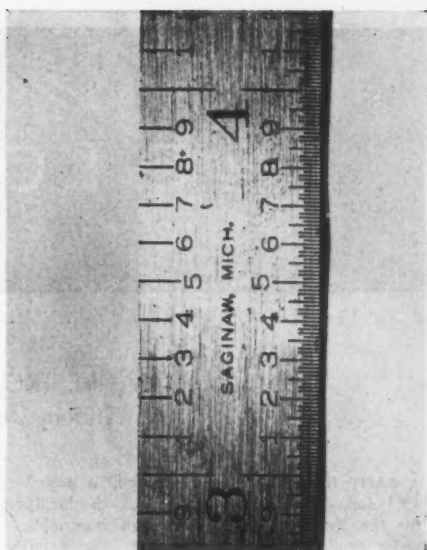
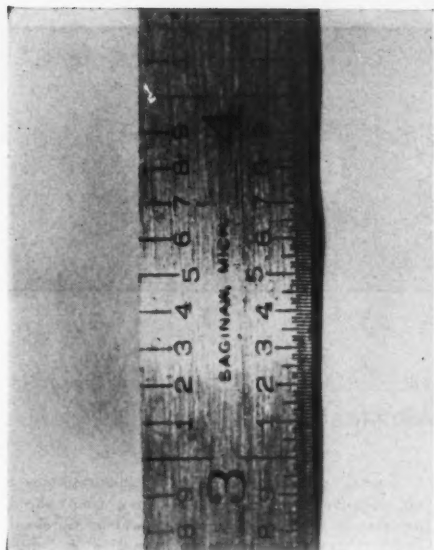
A spirit level is useful in making sure that both the test lens and the microscope are mounted on a direct line with the steel scale across the room.

#### Judging Lens Quality

Once you have set up your equipment as suggested here and found the image of the steel scale and focused on it, you'll be able to judge almost instantly the quality of the lens being tested.

Perhaps it would be more accurate and more practical to say you will be able to judge quickly the comparative qualities of two or more lenses being tested.

*(Continued on page 121)*



**TEST IMAGES** cast by lenses look like this when viewed through the microscope. Image on right, above, was cast by 5 1/4-inch Zeiss Tessar. It is so sharp that the 1/100-inch gradations and surface texture of rule stand out clearly. Image on left was cast by a meniscus lens taken from a box camera. While fairly sharp in the middle, the image falls off rapidly toward the edges. Lenses of wide variation had to be selected to show proper contrast in reproduction.

**PRACTICAL RESULTS** compared. The pictures below were taken under identical conditions with the lenses described above. In order to make the lenses the only variable, the meniscus lens was mounted and used in the same Speed Graphic as the Zeiss Tessar. Thus, both lenses had the advantage of ground glass focusing and accurate exposure with the focal plane shutter of the camera. Loss of quality is more apparent when shooting subjects at greater distances.



*Minicam*

# PHOTO DATA

CLIP SHEET FOR PERMANENT REFERENCE

## NEGATIVE TROUBLESHOOTING During Development

**M**ANY things can happen to spoil a negative during development, if one lacks the facilities for the strict development controls that laboratories employ. Fortunately, however, the majority of negative-spoiling errors can be remedied once the basic causes for them have been identified.

### Pinholes in Negatives

Pinholes, one of the most common negative faults, appear as tiny, scattered, clear spots in the developed film. The foremost cause for pinholes is dust that has settled on the film and which prevents the developer from acting upon the emulsion. Meticulous attention to avoiding dust in the camera, film holders, and darkroom is the natural remedy. In loading roll film into a clean tank or in fastening film to clips or hangers, extra care must be taken to avoid stirring up dust that may be present on the walls or work bench.

Dust from dried hypo and other chemicals is another cause for pinholes. Dry hypo dust goes to work fixing out a negative as soon as it is placed in developer and the result is invariably an assortment of clear specks on the film.

Most developers utilize rather heavy concentrations of Sodium sulphite as a preservative and tiny undissolved particles sometimes float freely about in the developer. This also results in pinholes on the film. Straining through blotters or filter paper is the best remedy.

### Scratches

When dust, grit, or careless handling causes film to become scratched, thin straight lines will appear upon development. If the scratches were made in the camera before the film was exposed, the scratch markings will usually appear light after development. If the scratches were made after the film was exposed to light, the scratches will appear dark.

Several inexpensive solutions designed to cover up negative scratches are available from photo dealers. A fairly good print can also be obtained from a scratched negative by making a "glass sandwich" in which the damaged negative rests in a shallow pool of glycerine and is pressed between two sheets of glass.

### Streaks

A. Dark streaks which appear in the negative during development and fixation are generally wavy and uneven in appearance. They differ in appearance from static markings and streaks from camera light leaks (both of which are latent in the film before development begins) in that static markings are forked, irregular wavy lines. Camera light leaks, on the other hand, produce strong black lines that spread out from a corner or a side of a negative. Static markings are caused by an electrical charge in the film, usually traceable to its manufacturing, but also attributable to fast, rough winding of the film in the camera. Light leaks result from either faulty equipment or from careless handling of roll film or film holders in bright light.

B. Irregular areas of light and dark density in negatives can be caused by the addition of either warm developer, or concentrated developer, to a tank or tray during development. They can also be caused by insufficient developer in a tray.

C. Wave-like markings on tray developed negatives indicate insufficient rocking. Patches of light or dark areas, often with sharp edges, usually indicate uneven development resulting from an unequal flow of developer over negatives.

D. Parallel light or dark streaks—in which the light streaks show up in the dense areas of the negative, and the dark streaks appear in the light areas—are generally caused by insufficient agitation during development which, in turn,

(Continued on page 90)



"Thy word is a lamp—" by  
Mal Vaughan, Santa Barbara, Cal.,  
and his SPEED GRAPHIC.

## ARE YOUR PICTURES PRIZE WINNERS?

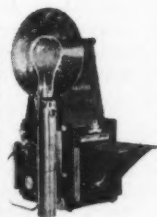


**THEY CAN BE** if you see your local Graflex dealer today. He can show you one of the new Pacemaker GRAPHICS . . . with exclusive built-in features that mean easier-to-take, finer, clearer, more accurately composed pictures. For prize photographs you need a prize-winning camera!



**AND THE RB SERIES B GRAFLEX**, the most popularly priced of Graflex cameras, is a precision instrument fitted with a fine Kodak Ektar f/4.5 lens with hard, anti-reflection surface coating. As with the Super D, you see the picture on ground glass exactly as it will be recorded on film. The quick-moving, revolving back permits either vertical or horizontal composition.

**AND THE SUPER D GRAFLEX** is another outstanding camera achievement. One of its many important features is the exclusive Automatic Diaphragm. This means you can pre-set your aperture, keep the diaphragm wide open for easy focusing, and—upon tripping the shutter—the Automatic Diaphragm will close down to the f/stop you selected.



**IN ADDITION** to these wonderful camera values, your Graflex dealer will gladly show you many other much-in-demand Graflex photo products, including Sheet Film Holders, Film Pack Adapters, Tele-Optar Lenses (10" and 15"), Flash Synchronizers, the 4 x 5 Graphic View camera for serious work, Pan-Tilt Heads, No. 4 Crown Tripods, and the revised 8th Edition of Graphic Graflex Photography.

Write for free descriptive literature, Graflex, Inc., Room 216, Rochester 8, N. Y.

GRAPHIC cameras and accessory photo-products are manufactured only by Graflex, Inc., U. S. A.

**GET PRIZE WINNERS WITH GRAFLEX**

Western Division Office, 3045 Wilshire Boulevard  
Los Angeles, California



*Minicam*

# PHOTO DATA

CLIP SHEET FOR PERMANENT REFERENCE

encourages local concentrations of exhausted developer.

E. Either light streaks or dark streaks which appear where film holders come into contact with negatives are caused by: 1. improper short-stop technique; 2. Contaminated film holders.

If film is taken directly from developer to fixing bath with no intermediate rinse or short-stop, an accumulation of developer from hangers, clips, or tank flanges can run down the sides of the film and produce local over-development after the film is in the fixing bath. This is particularly likely to happen when the fixing bath is below normal strength.

Chemical residue on clips, hangers, and in tank spirals can also produce streaks. A solution for cleaning tanks and trays can be made by dissolving a pinch of Potassium Permanganate in water and adding an ounce or so of glacial acetic acid. Let the solution stand in the tank or tray for an hour, then pour it off. Fill the container with hypo that has outlived its usefulness, let it stand for a few minutes, pour off, and rinse the container thoroughly in water.

## Water Spots

Semi-transparent, droplike markings on negatives are usually water spots caused by improper drying of the film. After film has been thoroughly washed, it should be suspended by one corner to drain and dry in a diagonal position. If the wash water is clean, it is not absolutely essential to swab or wipe the film. In recent years, wetting agents have become extremely popular as a water-spot preventive and an aid to quick drying. Wetting agents are available from photo dealers under a host of trade names, and are very inexpensive. After film has been thoroughly washed it is placed in a final rinse to which a few drops of wetting agent has been added. After a few seconds in the wetting agent bath, water will flow off the

film in rivulets instead of collecting in drops when the negatives are hung up diagonally to dry.

## Air Bells

When bubbles of air prevent the developer from acting upon the film emulsion, clear spots appear in the negative which will print as dark blots. In tray developing under a safelight, air bells can be seen and burst with a fingertip or soft brush. If tray developing is done in the darkness, running the fingertips or a brush over the surface of the film—together with rocking the tray—usually bursts the air bubbles. Tanks should be given several vigorous shakes immediately after the film has been submerged in developer to accomplish the same result.

## Frilled Emulsion

The wrinkling or frilling of the emulsion along the edges of a negative indicates that the developing solution was too warm, or that there was too much difference in temperature between the various baths involved. Sometimes the frilling continues until whole portions of the emulsion floats off its support.

## Reticulation

Reticulated film has a wrinkled or "sand-blasted" appearance. Excessive variations in temperatures between baths is the usual cause. This is particularly true when a very warm developing bath is followed by an icy fixing bath.

## Reversal of Images

Either partial or complete reversal of a negative into a positive image is caused by a faulty safelight, or exposure of a negative to white light during development. Intentional exposure of a negative to white light during development is called "solarization." By George Reid.

A subscription to MINICAM PHOTOGRAPHY is an ideal birthday or anniversary gift for your friends. 12 issues for \$2.50.



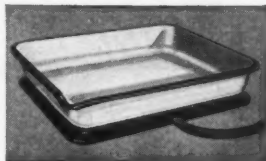


U. S. and Foreign Patents Pending

# Morse M-80 TRAY-TEMP

Temperature Control Tray Base

ANOTHER  
*Morse* FIRST  
NOT JUST AN  
IMPROVEMENT  
—IT'S ENTIRELY  
NEW



The new Morse M-80 Tray-Temp is a reservoir base in which the developing tray rests. Hot, cold or mixed water is circulated through the Tray-Temp until the proper temperature is reached. Thereafter, water is used, as required, to maintain temperature.

The Morse M-80 Tray-Temp is a revolutionary and inexpensive method to maintain **constant** control of developing temperatures. . . . Connect the Tray-Temp to your water faucets. Set your developing tray in it. Now you can control your developing temperatures quickly and accurately with a simple flow of hot, cold or tempered water, as required. The Tray-Temp is molded rubber to serve you for years. . . . Forget the heating pad and the ice cubes — assure quality prints with the new Morse M-80 Tray-Temp. Available for 11" x 14" trays—other sizes ready soon.

THE



INSTRUMENT COMPANY

24 Clinton St.

HUDSON, OHIO

Manufacturers of PRECISION PRINTERS—DEVELOPERS—STUDIO LIGHTS  
WRINGERS—STRAIGHTENERS—FILM DRYERS

See Your Photo Dealer or write

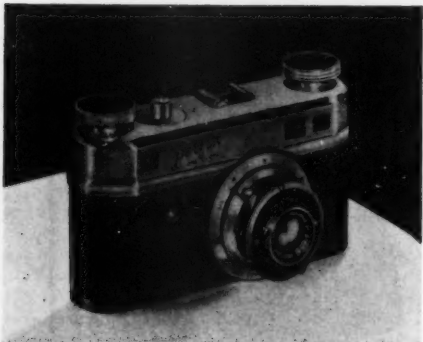
# NEWS ABOUT NEW PRODUCTS

## Kodak Neutral Test Card

The Kodak Neutral Test Card showing known reflectance characteristics, fills a need which existed for years with color photographers. A gray side of 18 per cent reflectance, and a white side of 90 per cent reflectance, 8 x 10 inches, four cards in an envelope, fills the bill. \$1.00 per envelope.

## New Perfex Cameras

The 101 and the 102, two new Perfex cameras, are now in production both with Alphas



shutter. For \$39.99 the 101 stops at 1/150th

and has an f4.5 Wollensak coated lens; the 102 stops at 1/200th and has an f3.5 coated lens for \$10 more. Manufactured by Camera Corp., of America, 844 W. Adams St., Chicago 7, Ill.

## Compco Slide Binder

The Compco Slide Binder provides one of the best means of protecting your treasured transparencies. It accommodates all standard slides, 2 x 2 to 3 1/4 x 4 1/4, has baked-on attractive hammer-gray finish, and sells for about \$4.75. Made by Compco Corp., 2251 W. St. Paul Ave., Chicago 47.

## Kodak Extension Cord

A three-foot Extension Cord for the Kodak Flashholder, which permits the Flashholder to be held at a short distance from the camera when desired, is now available from Kodak dealers for \$2.04 including tax.

## Water Demineralizer

A water demineralizer by Penfield Manufacturing Co., Inc., Meriden, Conn., is designed to convert ordinary tap water to the chemical equivalent of distilled water at a very low cost. It consists of a wall bracket, the renewable resin cartridge and an electrical resistance indicator to show when a new cartridge is needed. \$59.50 F.O.B. factory.

## Flash Shutter on Vigilant Six-20 F:6.3

A Kodak Flash Dakon shutter is now being featured on the Kodak Vigilant Six-20 F:6.3 camera so that flash can be used at 1/25, 1/50, and 1/100 second shutter speeds with Class F Photoflash Lamps such as the SM. \$36.50



# buy it from Bass



He's left his icy deep cravasse  
To come by sled to Charlie Bass.  
He's got some photo chores to do  
Like taking shots of caribou.

What e'er your camera task may be  
To buy or sell or trade . . . see me.  
Or write me saying what you need  
I'll rush my answer . . . double speed.

*Charles Bass*  
President

## Bass Camera Co

179 W. MADISON ST.  
CHICAGO 2, ILL.



## Want to catch a cat in mid-yawn?



"Open flash" with one General Electric SM by Harvey I. Shaw, Hollywood, California

If the subject won't  
**"HOLD IT"**  
...a G-E Midget will!

When you want to catch action with your camera, a G-E Midget can help you do it! For example, take the G-E Speed Midget (SM). Even on "open flash" it gives you the effect of a 1/200 shutter speed . . . to catch split-second action, clean-cut detail. Just pick your action and flash it!

Today more and more photographers are asking for G-E flash bulbs . . . and good things go fast. When your dealer can't supply you, get G-E Reflector Photofloods and Reflector Photospots. Try a pair in Triangle Lighting. You'll like the result!



*Remember...for every photographic purpose*

**G-E LAMPS**

**GENERAL  ELECTRIC**

# PAY LESS at PEERLESS

Save \$17.03

## ARGUS C3 CAMERA OUTFIT



|   | List Price | Your Cost |
|---|------------|-----------|
| ARGUS C3 Camera with 13.5 coated lens, coupled R.F., flash gun & case...                              | \$74.71    | \$74.71   |
| Suggested accessories:  |            |           |
| Dural Combination Lens Shade & Filter Holder....  | 5.50       |           |
| Set of 3 Optical Filters @ \$2.75.....  | 8.25       |           |
| 12 Rolls Plus X, 36 exposures, slightly over-dated but hermetically sealed for lasting freshness..... | 12.96      |           |
| Total Value.....  | \$101.42   | 9.68      |

Brand New, \$84.39  
All for Only..

## CAMERA BARGAINS

|  |          |
|--|----------|
| BOLSEY, 13.2 ctd., cpld., New.....                         | \$ 50.63 |
| CONTAX III, 12 Sonnar, LN.....                             | 295.00   |
| ADOX II, 12.9 Schneider, Compur, List \$98.00, New.....    |          |
| TENAX I, 13.5 Zeiss, case, LN.....                         | 49.89    |
| DOLLINA II, 12.9 Cassar, coupled, exc.....                 | 59.50    |
| RETINA I, 13.5 Xenar, exc.....                             | 65.00    |
| B&J PRESS, 4x5, 14.7 Ektar, Kalart R.F. Sol. Gun, exc..... | 49.50    |
| EXAKTA A, 13.5 Tessar, exc.....                            | 129.50   |
| AUTOFLEX, 12.9 Trioplan, LN.....                           | 79.50    |
| KORELLE I, 12.9 Radionar, LN.....                          | 99.50    |
| KORELLE II, 12.0 Radionar, Like New.....                   | 89.50    |
| LEICA C, 13.5 Elmar, LN.....                               | 155.00   |
| MEDALIST, 13.5 Ektar, LN.....                              | 99.50    |
| PERFEX 101, 14.5 coated, coupled, New.....                 | 159.50   |
| ARGUS A2, 14.5 ctd., case, New.....                        | 39.99    |
| ARGUS A2, 14.5 case, LN.....                               | 37.58    |
| IKONTA A, 14.5 Zeiss, LN.....                              | 22.50    |
| KODAK DUO-620, 13.5, LN.....                               | 65.00    |
| ROLLEICORD, 13.8 Triotar, exc.....                         | 69.50    |
|  | 95.00    |

Mail This Today!

PEERLESS CAMERA STORES

138 East 44th St., N.Y.C., Dept. M

GENTLEMEN: Please send FREE Bargain Bulletin containing latest listings of new and used equipment.

Please send trade-in allowance on my.....

Toward the purchase of.....

Name.....

Address.....

City.....

PEERLESS CAMERA STORES

the block-long photographic department store

138 E. 44th St., New York 17, N.Y.

plus tax. Other features of the camera are retained.

## Federal's 269 Enlarger

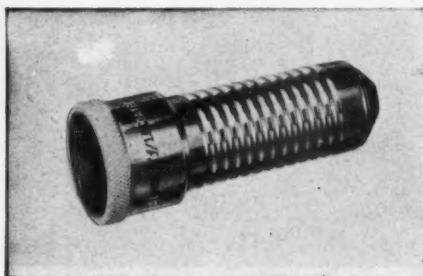
Boasting that their new Model 269 Store-Away enlarger can be set up in 39 seconds flat, Federal prices it at \$39.50, federal excise tax included. Features are: 3 1/2" (9 cm.) Decar F: 6.3 anastigmat (3 element) enlarging lens, mounted in barrel with iris diaphragm; negative size up to 2 1/4 x 3 3/4; 1 3/4 x 2 removable lens board; will not slip after adjusted to proper focus; magnifies 1 1/2 to seven times at base-board and about 14 times with a 2" (5 cm.) lens.

There are many other features that will especially interest darkroom enthusiasts who do their work in small apartments or limited space.



## Somco Wide-Angle Lens

More sparkle, color and contrast for your 8mm. movies is assured if you use the Somco 3/4" focus f1.6 wide-angle lens, manufactured



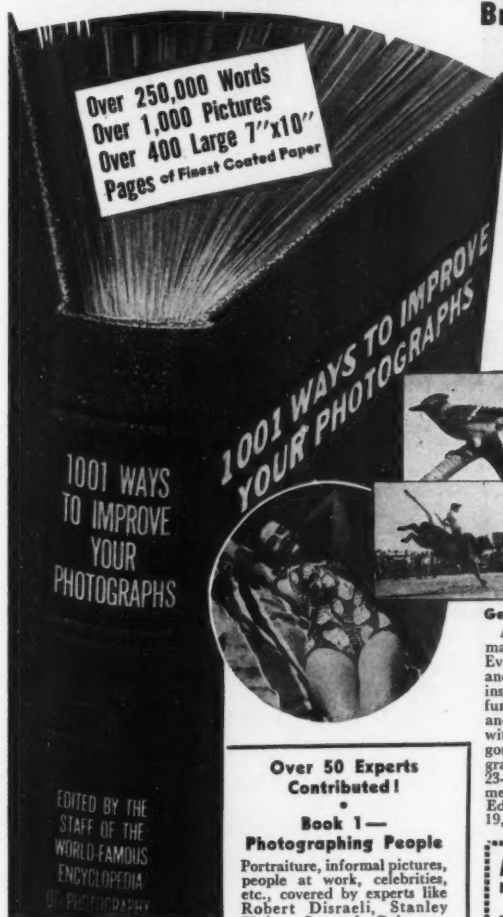
by Simpson Optical Manufacturing Co., 3200 W. Carroll Ave., Chicago 24. It gives you full screen projection at shorter distances which is ideal for small or average size rooms. \$18.00.

## Baco "Air Lite" Case

Moisture-, water- and dust-proof are important features of Baco's Air Lite case. It is

# 1001 Ways to Improve Your Photographs

4 Handbooks Bound as One at the Bargain Price of One  
Bring You Over 1600 Ideas  
in these 4 Broad Fields:



**Photographing People — The Dark Room—Lighting—Sports and Action Photography**

**T**HIS is a unique book! We asked 150,000 amateurs and professionals in every state what kind of help and guidance they needed. We tabulated all their answers and had the country's foremost experts custom-write this amazing compendium of 1600 "how-to-do-it" photographic ideas.

## Increase Your Pleasure and Profit in Picture Making

Think of having at your instant command the help and advice of such world famous authorities as Nicholas Muray, Robert Nesmith, Victor Keppler, Ed. Thorgeresen, Barbara Morgan, Ned Scott, Earl Theisen, Ansel Adams and many others—over 50 in all; with 1000 picture contributions of 125 noted photographers! Here are working guides, drawings and instruction that you can apply at once with pleasure and profit to still and motion-picture photography.

## Get Double Value from Your Present Equipment

Are you a commercial photographer? Newsreel man? Laboratory technician? Advanced amateur? Every page and plate in this book will interest you and give you a "new slant." You'll be thrilled and inspired by the prize-winning prints; enjoy the vast fund of practical ideas, shortcuts, formulas, methods and tricks. Superbly printed, profusely illustrated with fine-screen halftones, rich full-tone gravures and gorgeous full-color pages. Lifetime de luxe morocco-grained buckram binding, ornamented with REAL 23-KARAT GOLD! Only \$4.75, easy monthly payments—if you keep it after FREE trial! National Educational Alliance, Inc., 37 W. 47th St., New York 19, N. Y.

## Over 50 Experts Contributed!

### Book 1—Photographing People

Portraiture, informal pictures, people at work, celebrities, etc., covered by experts like Robert Disraeli, Stanley Hoke, Samuel Grierson, Robert Nesmith, Roy Lee Jackson and many others.

**Book 2. The Dark Room** Arrangement, Water Bath Development, Toning, Texture Screens, Other Advanced Darkroom Techniques, by Neston Barrett, Morris Germain, Ira Current, Ansel Adams, Don Nibbelink, etc.

**Book 3. Lighting** Lighting for Color, Lighting for Amateur Movies, Special Techniques, by Victor Keppler, Russel C. Holslag, Fred Archer, Ansel Adams and other experts.

**Book 4. Sports & Action Photography** Analyzing Sports and Action with the Movie Camera, Making Great Action Pictures, Children in Action, Hiking with the Camera, etc., by Phil Brain, Ed. Thorgeresen, Helen Post, Hulbert Burroughs and many others.

(This is only a small suggestion of the great wealth of information in this book)

Copyright by National Alliance, Inc.

## Mail This FREE-Trial Coupon!

National Educational Alliance, Inc.

37 West 47th St.  
New York 19, N. Y.

Do Not Write in Boxes

YES, reserve for me a copy of the 4-books-in-1 "1001 WAYS TO IMPROVE YOUR PHOTOGRAPHS," bound as one large volume in De Luxe Buckram Library Edition (ornamented in 23-Karat GOLD!) Ship this book as soon as it is ready. At the end of seven days, free examination, I will either return it promptly and owe you nothing or keep it and send you only \$1 then and only \$1 a month until total price of only \$4.75 plus a few cents postage is paid.  
SAVE CHARGES ON S. L. SHIPMENT. Mail only \$4.75 with this coupon and we will stand all shipping charges. Same return privilege; refund guaranteed.

Name .....  
(PRINT PLAINLY IN BLOCK LETTERS)

Address .....

City & Zone No. .... State .....

**Guaranteed**  
**35mm BULK FILM**  
**FRAME**  
**NUMBERED**



PURCHASED FROM U. S. GOVT. REFRIGERATED VAULTS, WHERE FILM WAS STORED TO PRESERVE ITS FRESHNESS!

- Eastman
- Super XX
- P16 X
- Panatomic X
- Ansco
- Supreme
- Infra Red
- Ultra Speed
- Superior Type II or III

**50 ft. \$1.00—100 ft. \$1.85**

**RELOADED CARTRIDGES FRAME NUMBERED**  
 (Metal or Plastic)

**36 Exp. .... 3 for \$1.00**

**20 Exp. .... 6 for \$1.50**

**Free**

**10 EMPTY**  
**35mm CARTRIDGES**

**With Any Combination**  
**Purchase Listed Below**



100 ft. 35mm bulk film  
 (your choice) Reg. .... \$2.85  
 Daylight bulk film  
 loader. Reg. .... \$6.62  
**\$9.47**

**Complete**  
**price to you \$7.30**

200 ft. 35mm bulk film,  
 any emulsions ..... \$3.50

400 ft. 35mm bulk film,  
 and emulsions ..... \$6.50

(a) 100 ft. 35mm safety positive film for  
 transparencies can be simply used for  
 making slides, contact prints; ideal for  
 projection purposes, viewing, etc.

(b) 100 ft. 35mm bulk film, negative.  
 Total Price ..... \$4.35  
 Complete Price to you ..... \$2.85

**35mm Ansco Color Reloads**

**20 Exp. .... 5 for \$4.90**  
**36 Exp. .... 3 for \$4.90**

**35mm Fans:**

**Fine Grain Developing and Enlarging**

Any 36 Exposure roll Fine Grain Developed and  
 Enlarged on selected single weight glossy paper  
 (including mercury film) to 3½x4½ ..... \$1.50

No C.O.D. on Developing  
 Write for FREE mailing bags and price list.  
 Mail Orders Promptly Filled — Postpaid or C.O.D.

**MODEL**  
**FILM COMPANY**

**1190 6th Avenue, New York, N. Y.**

lined with lintless dark blue velvet, and is the



first in a series of new cases by Baco Accessories  
 Co., 5338 Hollywood Blvd., Hollywood 27.  
 \$49.50.

#### **Safe-T-Trimmer**

If that cutting blade on your trimming board  
 has been a constant safety worry to you, then  
 you probably will be interested in the Safe-T-  
 Trimmer, manufactured by the Calgary Brothers,  
 2508 Broadway, New York.

As illustrated the cutting blades are designed  
 so that a 1¼-inch stroke is all that is needed



to trim prints. In addition to this safety feature  
 the Safe-T-Trimmer incorporates many others  
 such as its light weight and rubber feet to pre-  
 vent scratching. Its dimensions are 2" high,  
 11¼" square. About \$10.95.

#### **Apollo Sound Projector Plays Through Radio**

By employing the unusual feature of playing  
 sound through the family radio, Excel Movie  
 Products, Inc., Chicago, has eliminated the  
 need for an extra loud-speaker and amplifier,  
 thereby making their new Apollo Sound Pro-  
 jector available for only \$129.50.

Features are: 2" F:2 fully achromatic coated  
 lens, 500 watt projection lamp, simple thread-  
 ing, professional type claw framer, and im-  
 proved high lumen shutter. It has various other



No. 1 of a series

# Inside the Walls

at the *Fred Archer*

SCHOOL OF PHOTOGRAPHY

A look inside of Studio E, 4th floor (outlined at right above) one of the large shooting studios.

On fashion assignments, large groups work together in a competitive spirit under expert instructors.



Atmospheric sets representing a street in Cairo, a forest scene and a Mexican patio are built by students for illustrative and advertising photography.



Full time course . . . 24 months  
co-educational.

Send for Brochure M4

## THE FRED ARCHER SCHOOL OF PHOTOGRAPHY

2510 WEST 7TH STREET, LOS ANGELES 5, CALIFORNIA

A non-profit institution

DIRECTOR: FRED R. ARCHER, FPSA  
PRESIDENT: SEYMOUR L. ELKINS



accessories that increase its uses such as 2,000 foot reel extension arms for showing full length features.

#### Add-A-Flash

Add-A-Flash combination AC-battery portable speedlight by Electronic Specialties, Inc., 2643 E. Dauphin St., Philadelphia 25, gives a 1-5000th flash with more light than a No. 22 flashbulb. A flip of the switch changes operation from its self-contained non-spill wetcells to any 105-120 volt AC outlet. Up to 200 flashes can be had from a single charging of its batteries.

Accessories include battery charger, flashgun type handle, extra battery sets, sealed beam

and studio flashtubes with 20 foot cables, Booster-Flash for multiple light operation. \$180.00 plus tax.

#### GE Projection Lightmeter

The Model 8PH12 is the answer to your light measurement troubles. This new, portable (8 lbs.) projection lightmeter flashes light measurements on a screen for easy reading by large audiences. It is a great aid to lectures and commercial demonstrations showing lighting conditions. Additional information is available in Bulletin GE C 265, Apparatus News Bureau, General Electric Co., Schenectady 5, N. Y.



#### Da-Lite "Miniature Catalog"

A 16-page "Miniature Catalog" providing accurate screen tables, a standard aperture chart, and a unique formulate for finding the correct screen size for any projector and any lens at any distance, is published by Da-Lite Screen Co., Inc., 2711 N. Pulaski Rd., Chicago 39.

#### Model 63LM Sound Projector

The Model 63LM is the 16mm sound projector, manufactured by Movie-Mite Corp.,

## 5 Second Quizz

"Q" What is the RIGHT WAY to MOUNT snapshots?

"A" Use

# Speed-O-Mount

• Easy to use. Junior can do it!

• Mounts 24 to 72 photos, recipes, clippings and other keepables for only 10 CENTS.

• Makes mounting, titling a PLEASURE.

• SPEED-O-MOUNT keeps photos, etc., in neat, orderly rows, yet each priceless shot of BABY or FAMILY readily seen. Eliminates skipping from page to page.

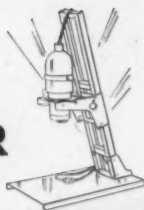
• Items can be mounted vertically or horizontally. Makes any album hold 10 times as many photos.

Ask for SPEED-O-MOUNT at your favorite News-stand, Drug, Camera, Stationery, Dept., and 5-10c Store. OR Send 10c for FULL SIZE package to

## HOLSON BINDERS

762 WYTHE AVENUE • BROOKLYN 11, N. Y.

# for the fan on a budget... the new Compcó ENLARGER



EQUIPPED WITH ALL THE ESSENTIAL FEATURES NECESSARY TO PRODUCE BRILLIANT, ACCURATE ENLARGEMENTS

**\$26<sup>95</sup>**

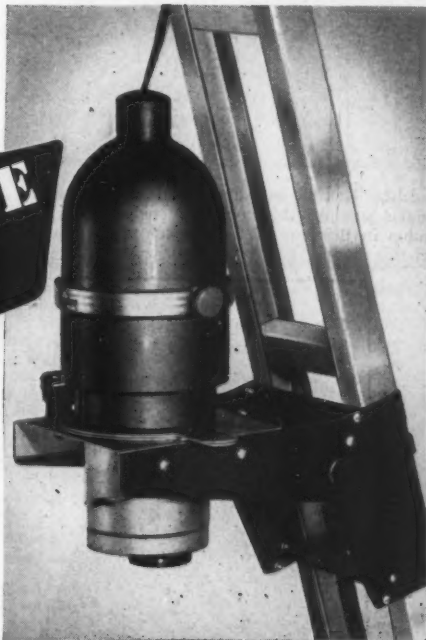
plus f. o. t., less lens

**PERFORMANCE  
TESTED**

Want an efficient enlarger . . . a basic instrument without fuss or frills, that will give you long lasting service and fine reproduction? Choose Compcó!

You'll realize, once you've seen it, that here's a low cost enlarger that really has everything you want, plus some features you'd expect to find only in the most expensive instruments.

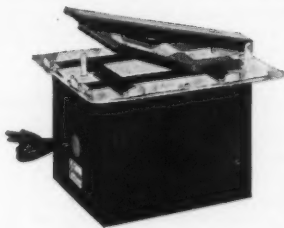
DUSTLESS NEGATIVE CARRIER • TWO SOLID STEEL STANDARDS TO ELIMINATE SWAY • BASE IS NON-WARP PRESSED STEEL • VENTILATED LAMP HOUSE UNIT • HEAT ABSORBING CELL UNIT • STANDARD ACCESSORIES AVAILABLE.



## Compcó ALL METAL CONTACT PRINTER *only* **\$6<sup>95</sup>** plus f. o. t.

It's fun making your own prints when you make

them with Compcó's compact, economical printer.



### • A Performance Tested Product

- Takes all size negatives . . . 35MM to 4 x 6 inch (10CM x 15 CM) including postcard size 3 1/4 x 5 1/2 (No. 122 film), also glass plates.
- 4 adjustable masking bands. Automatic light switch.
- Has yellow-green Indicator window.

dow. Shows when white-light is on (tells when to start counting).

- Has hinged platen with sponge rubber facing. Paper and negative held firmly in position when pressure is applied.
- All parts plated or finished in smooth Hammertone Grey baked enamel. Nothing is rust! Easy to keep clean!

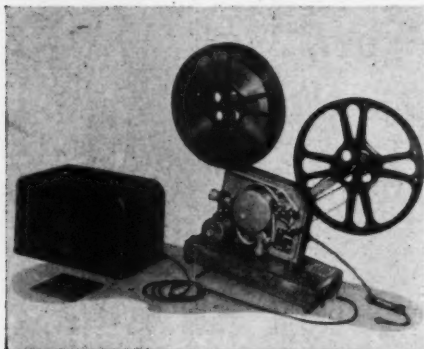
All Leading Photographic Dealers  
Feature Compcó Products

\* With 3 1/4 inch f 7.7 Compar Anastigmat lens:  
\$29.95 plus F.E.T.

**Compcó** CORPORATION  
*Manufacturers of Fine Photographic Equipment since 1922*

2251 ST. PAUL AVE., CHICAGO 47

1105 E. 15th St., Kansas City 6, Mo. A new



push-pull amplifier using miniature tubes which make possible the complete enclosure of the tubes in the base of the projector, is a feature of this model. The new low price is \$225.

#### All Metal Double Film Holder

An all metal double film holder to fit all standard press cameras is being marketed by Burke & James, Inc., 321 S. Wabash Ave., Chicago 4.

A "U" shaped support is hinged inside the holder in such a way that when raised the film is just laid in position — when lowered it grips the edges of the film. Snubbers hold the wire so that the film cannot fall out when the holder is in the camera and the slide withdrawn.

#### Customflex Synchronizer for Ansco Automatic Reflex

The new Lumenar Reflector, three-cell Battery Case with new style Clamp, Universal Reflex Bracket on which the camera is mounted in a rubber cushion, the new type Safety Grip Cord, and a completely new precision Electromagnetic Coil are new features of the Customflex Synchronizer.

Designed by Heiland Research Corp., 130 E. 5th Ave., Denver 9, Col., especially for the Ansco Automatic Reflex, the new synchronizer retails for \$51.20, Federal Excise tax included;



*The Original*  
**PRECISION  
BACO B-3** CUT FILM  
HOLDERS

**WHY TAKE CHANCES?**

**Dependable Equipment is a  
MUST for good Photography**

The NEW BACO B-3 Cut Film Holders are manufactured within tolerances set by A.O.S. standards. Experience, Workmanship and the Finest of materials go into each Baco Cut Film Holder. Outstanding features such as precision metal film guides that may be drilled or cut for identification marks. Extra long cover plate for ease of handling. An extra durable made lite trap makes it impossible to fog your film regardless of how you insert free running dark slide. (Infra-red proof) Beautiful durable Black Finish. Many other Features.

**YOU WANT TO BE IN PICTURES?**

TIME-D-LAY is a new delayed action timer for shutters without this feature. Fits most shutters and has time adjustment from 1 to 20 seconds or more.

**\$1.95**



**BACO ACCESSORIES COMPANY**  
5338 HOLLYWOOD BLVD. HOLLYWOOD 27, CALIFORNIA

# OWN YOUR OWN PHOTOGRAPHY BUSINESS!

Learn how  
easily you can  
be a success in  
this fascinating  
and profitable  
career!



← PROFESSIONAL  
LIGHTING

RETOUCHING →  
CLASS



← USE SCHOOL  
MODELS



DYE →  
TRANSFER



← DARKROOM  
TECHNIQUE



ACTUAL SCHOOL SCENES AT BIP

## STUDY UNDER THE DIRECT PERSONAL SUPERVISION OF MASTERS OF THE CAMERA!

To listen to a professional photographer talk, you'd think it was a tremendously complicated, technical business. Yet, after you learn only a few fundamentals, you'll find there is no other occupation which offers you so much personal creative pleasure!

## MINIMUM OF THEORY - - MAXIMUM OF PRACTICE

The men and women who are now studying (and our many successful graduates) all have told us that they were agreeably surprised at the BIP method of teaching. You start right in on your very first day, taking pictures. The technical details are explained *as they arise* . . . not in dry, preliminary lectures. You learn while *doing*.

While all courses are geared to the individual rather than to "classes," in general, you may figure your time as follows: 60% will be given to actual photographic practice; 25% to progressive assignments; and 15% to classroom demonstration.

## DAY OR EVENING STUDY

Many of our students find that they can make outside money by taking a part time job and attending classes in off hours. The school also maintains an up-to-date list of nearby approved lodgings at moderate cost. The school plant itself is an immense building, located in a fine residential neighborhood.

QUALIFIED  
VETERANS  
admitted under  
the G.I. BILL

GET YOUR  
FREE

COPY OF OUR  
COLORFUL NEW CATALOG  
...no obligation

## MAIL OPPORTUNITY COUPON FOR QUICK ACTION!

BALTIMORE INSTITUTE OF PHOTOGRAPHY  
North Charles at 24th St., Baltimore 18, Md.

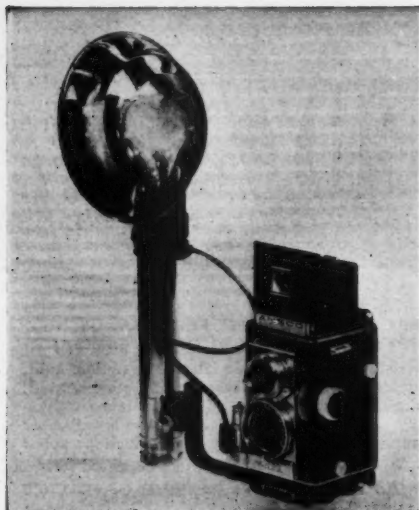
I'd like more details about how I can learn photography in the professional manner. Please send me FREE Catalog (E) with no obligation.

Name.....

Address.....

City.....Zone.....State.....

BALTIMORE  
INSTITUTE  
OF  
PHOTOGRAPHY

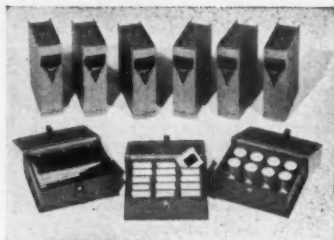


an additional \$22.50 for factory type installation.

#### Six New Amfiles

Locating that negative, roll or print will be a lot easier with any of the series of six new photographic Amfiles now being marketed by

Amberg File & Index Co., Kankakee, Ill.  
The set includes Slide File with 15 compart-



ments each with a maximum capacity of 20 35mm. mounted slides; Filmstrip Files, one with room for 12 metal containers for roll film 1½" in diameter, the other with room enough for 16 metal containers; Negative Files for miniature rolls for 20, 18 or 36-exposure 35mm. rolls; and Files for flat negatives 3½ x 5", and one for 5 x 7".

#### 18-Year-Old Projector

Hank Wilson, Ampro's service manager, whistled in surprise one day last month as he scanned his morning's work and recognized a B-1000, the very first Ampro precision projector ever built, 18 years ago. Except for periodic lamp replacements, the projector operated perfectly this entire time, and required only 3½

**GOLD XX AND S-35**

**VON-L**

**DEVELOPERS FOR FILM  
AND PAPER**



*Increase Film  
Speeds 10 Times*

**ULTRA FINE GRAIN —  
INFINITE HIGH LIGHT  
AND SHADOW DETAIL**

Von-L Film Developers are **FAST** —**YES**—**BUT** important too, they are **Quality** developers. They give **DETAIL**—**DIMENSION**—**GRADATION**—**BRILLIANCE**—**LIFE**. They are **ECONOMICAL**—They have long "working lives" and **KEEP** indefinitely.

**GOLD XX** is THE developer for **STROBO LIGHT**.

**VON-L PAPER DEVELOPER** too, gives brilliant results. **AND** our incomparable **MIRACLE FIX** is again available.

Ask your dealer or write direct

**MON-BLANC Chemical Co., Fort Wayne 3, Indiana & Spearman, Texas**



**OUT OF THE CASE...  
READY TO ENLARGE  
...IN 39 SECONDS!**

It's the NEW, TERRIFIC  
**FEDERAL 269**  
**STORE-AWAY ENLARGER**

It's a full-size  $2\frac{1}{4} \times 3\frac{1}{4}$  enlarger, superbly engineered to deliver excitingly sharp, prize winning prints! Included in its amazing low price of \$39.50 is the tax — **AND** — Store-Away's needle-sharp F:6.3 anastigmat lens, with its handy, light-controlling iris diaphragm. There's rock-like sturdiness in its welded steel construction—and good looks in that 2-tone wrinkle finish. **OF COURSE, IT'S MADE BY FEDERAL!** . . . who first brought enlarging thrills into the American home—with unheard of enlarger values! See **FEDERAL'S** latest achievement—the sensational No. 269 **STORE-AWAY**—at your dealer today.

Carrying Case \$6.95 extra.

FOR ONLY  
**\$39.50**  
TAX  
INCLUDED  
COMPLETE WITH  
DECAR 1  
LENS

**Check These  
QUALITY FEATURES**

**ILLUMINATION:** Parabolic reflector, diffusion type  
**CARRIER:** Convertible for glass or dustless plates  
**FOCUSING:** Non-slip, positive friction drive control  
**MAGNIFICATION:** 1 to 7 times at baseboard  
**FILTER:** Red swing-away type  
**BASEBOARD:** Welded, reinforced steel  
**POST:** Detachable, 2-section tubular post  
**MODEL 279:** Same as 269, but with condenser lens illumination, \$47 (tax included), complete with lens.

**America's Greatest Enlarger Value!**



**OFF THE SHELF . . .** (Picture taken with **FED-FLASH**, the lens's handiest, sharpest value in low-cost cameras)



**ON THE TABLE . . .** (Another Fed-Flash shot superbly enlarged by the **STORE-AWAY**)

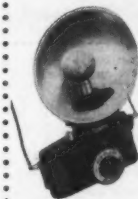


**YOU'RE SET TO ENLARGE! . . .** (**FED-FLASH** photo again, enlarged by **STORE-AWAY**. Note sharpness of detail, perfect contrast . . . a tribute to a perfect flash camera — a super-line enlarger!)

**For the perfect picture  
ANYWHERE . . . ANYTIME**

**FEDERAL  
FED-FLASH**

**CAMERA & FLASH UNIT**



Here's the camera that took the sharp photos in this ad! A child can do as well — it's so simple to operate. Just sight, shoot—and **FLASH** —you've got it!

**Only \$13.90**  
tax included



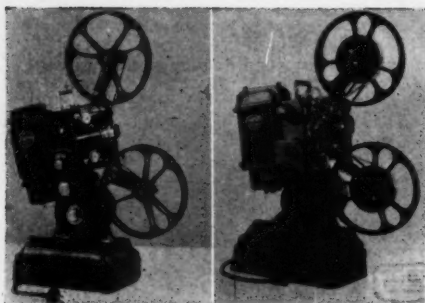
**FEDERAL MANUFACTURING & ENGINEERING CORPORATION**

Makers of Federal Enlargers, Cameras and Microscopes

213 STEUBEN STREET

BROOKLYN 5, NEW YORK

Canadian Distributors: Canada Photo Products, Ltd., 132 Wellington Street, W., Toronto 1, Ontario



18-year-old  
B-1000 at \$150.00.

The modern  
Imperial at \$276.00.

hours work by Wilson's department to be returned to A-1 duty for another 18 years.

#### Star D Slide Binders

Permanent protection for your  $2\frac{1}{4} \times 2\frac{1}{4}$  transparencies is assured with the Star D Binder because it is made of tough metal. The slide, which comes assembled, is simply and easily slid apart; the transparency is placed between the two pieces of micro glass, and then slid together again. Made by Davidson Manufacturing Co., 5146 Alhambra Ave., Los Angeles 32.

#### Three New Movie Films

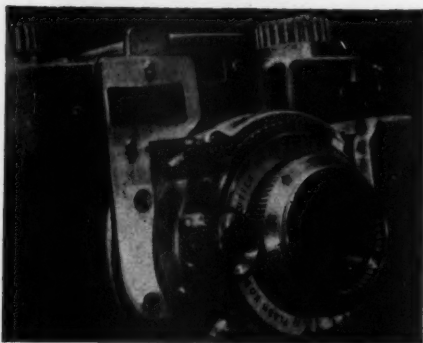
Known for their Charcoal Black and Charcoal Ember textured projection papers, Dassonville Co., Ltd., Newton, N. J., enters the movie film market with following: Orthochromatic, Weston 12, 25 ft. double 8mm., \$2.40; 100 ft. 16mm., \$5.60; Panchromatic, Weston 40, 25 ft. double 8mm., \$2.76; 100 ft. 16mm., \$6.63; Panchromatic, Weston 80, 25 ft. double 8mm., \$3.04; 100 ft. 16mm., \$6.63.

#### "Widor" Wide-Angle Lens Attachment

Doubling the angle of view of motion picture camera lenses without altering light transmission of image quality is featured in the "Widor" wide-angle lens attachment by Bell & Howell, 7100 McCormick Rd., Chicago 45. This lens answers the problems of taking group pictures at close range or including large indoor areas where distance is limited.

#### S.V.E. Color Slides

Six new color slide sets have been added to the S.V.E. series of VISUALIZED UNITS IN COLOR, which already has more than 100 sets in Arts, Science and Social Studies. These six are: The Virginia Colonial Legislature, A Visit to Morocco, Northwest Africa, Air Travel—Airport Activities, Air Travel—Passenger Service, Air Travel—Mail, Express, Freight and Baggage, and The Life of the Virgin.



Available directly from Manufacturer at great savings to you. Order your Relaxo today, and make your Kodak 35 R. F. an easier and better camera. Comes with complete simple instructions.

Relaxo is only..... **\$3.00**

☐ I enclose check or M. O. Please send my Relaxo postpaid.

☐ Please send my Relaxo C. O. D. I will pay postman \$3.00 plus small postage and C. O. D. charges.

(Be sure to print your name and address carefully)

**MONEY CHEERFULLY REFUNDED IF NOT COMPLETELY SATISFIED WITHIN 10 DAYS.** Order directly from

**LAKER HAIRSPRING SERVICE**

93 Nassau St. Dept. MC3 New York 7, N. Y.

\*Pat. Pend. Reg. U. S. Pat. Off.

Postpaid in U.S.A. & possessions only. Please add postage on orders from elsewhere. Shipping weight 2 ounces.

## KODAK 35 R.F. FANS

Now Take Better Pictures Easier

with **RELAXO\***

Acclaimed By Thousands of  
Enthusiastic Users

**RELAXO\* is PRE-TESTED and PROVEN**  
The Simple, Ingenious Accessory Body  
Release with **PROVEN EFFECTIVENESS**

—to provide eye-level quick action, enabling you to take shots without fear of vibration, thus avoiding danger of blurring due to camera movement while releasing the shutter.

—to provide instant, continuous, and smooth operation.

—to stay on permanently. RELAXO actually becomes part of the camera, blending beautifully with the other white metal components.

### SPECIAL BOON TO COLOR FILM USERS

**SO EFFECTIVE! • SO INEXPENSIVE!**

No user of a Kodak 35 R.F. can afford to be without one.

### RELAXO\* IS EASY TO INSTALL

Anyone can install Relaxo in only 5 minutes with only the turn of a screwdriver.

**NO DRILLING • NO FILING**

**RELAXO Fits Perfectly**

**Will not interfere with use of the Eveready Case.**  
(Complete simple instructions are furnished with each RELAXO sold)

# SAVE ON CHEMICALS WITH NIKOR TANKS



**NIKOR** tanks are thrifty *all ways!* On chemicals for example, only 8 oz. of solution is needed to develop a 5 ft. 35 mm. roll in the No. 35 tank. Similar solution economy in the larger tanks. But the big economy is due to their solid stainless steel construction. They can't chip or break . . . the lustrous

surface can't corrode or tarnish . . . therefore they last a lifetime. Their design, too, makes loading and daylight filling quick and easy; provides for free circulation and uniform agitation, resulting in even and perfect development. See **NIKOR** tanks at dealers today or write for literature.

## Prices including all excise taxes as follows:

|  |         |   |       |
|--|---------|---|-------|
| No. 1, for V. P. Roll Film . . . . .                 | \$ 8.50 | Extra Reels, regular models, any size . . .   | 4.30  |
| No. 2, for 2 1/4"x3 1/4" Roll Film . . . . .         | 8.50    | Stirring Rod & Print Paddle . . . . .   | .65   |
| No. 4, for 2 1/2"x4 1/4" Roll Film . . . . .         | 8.50    | Extra Tall Can, with plain cover and lifting rod, 12", to take seven 35mm. or four No. 120 reels, without reels . . . . . | 11.50 |
| No. 5, for 3 1/4"x5 1/2" Roll Film . . . . .         | 11.65   | Ditto, 17", to take eleven 35 mm. or six No. 120 reels . . . . .  | 13.50 |
| No. 6, for 3 1/4"x4 1/4" (Kodak Film only) . . . . . | 11.65   | Ditto, 22", to take fourteen 35 mm. or eight No. 120 reels . . . . .  | 15.00 |
| No. 33, for two 35 mm. 40-exp. rolls . . . . .       | 11.85   |   |       |
| No. 35, for one 35 mm 40-exp. roll . . . . .         | 7.50    |   |       |
| Adjustable Cut Film and Film Pack Tank . . . . .     | 16.50   |   |       |
| Multiple Developing Tank, without reels . . . . .    | 7.90    |   |       |

## BURLEIGH BROOKS CO.

120 West 42nd Street, New York 18, N. Y.

# Add Color

## BRING OUT THE HIDDEN BEAUTY OF YOUR FAVORITE BLACK-AND-WHITE PHOTOGRAPHS

Give color magic to your favorite black-and-white photographs with Marshall's Photo-Oil Colors. It's as easy as A B C to get true-to-life results the very first time you try. Here's your chance to thrill to the beauty of COLOR PHOTOGRAPHS—WITHOUT COLOR COSTS.

- LESS THAN ONE CENT PER PRINT
- NO SPECIAL SKILL NEEDED
- NO ARTISTIC ABILITY REQUIRED
- NO COLORS TO MIX
- NO BRUSHES NECESSARY
- CHANGES EASILY MADE

### YOU CANNOT RUIN A FAVORITE PRINT

You can always remove Marshall's Photo-Oil Colors and begin again. For amateur or professional, Marshall's oils assure brilliant nature-born colors at a cost BELOW 1c PER PRINT.

### FREE INSTRUCTION BOOKLET

Each Marshall set contains a FREE instruction booklet giving complete information on the application of the colors and the exact colors to use for various purposes such as blonde or red hair, grass, tree trunks, brick walls, etc. . . . In fact, everything to give you the knack for perfect results in glorious life-like tones.

Write today for "How to Make Beautiful Colored Prints with Marshall's Photo-Oil Colors." It's a 32-page illustrated book, which gives you the complete basic course in photographic oil coloring—15c.

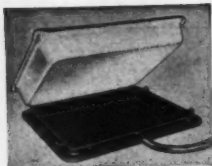
SETS ARE PRICED FROM  
\$5.85—\$1.25

# Marshall's Photo-Oil Colors

Dept. C6, 167 North 9th Street, Brooklyn 11, N. Y.  
Canadian Dist.: Canada Photo Products, Ltd.  
137 Wellington St., West, Toronto 1

## Morse M-80 Tray-Temp

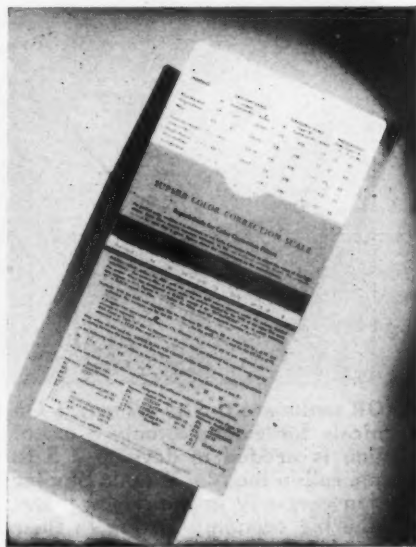
A revolutionary new, molded rubber reservoir base to provide constant control of temperatures in tray development is the Morse M-80 Tray-Temp by Morse Instrument Co., Hudson, O.



The unit, as illustrated, connects with water faucets and hot, cold, or tempered water and is regulated to the desired temperature. The flow of water maintains a constant degree.

## Willo Superb Color Correction Scale

A big aid for taking better color photos, and for only \$1.50, is the Superb Color Correction Scale. One side gives the correct stop for any



film with any flash bulb at any commonly used distance and at any recommended shutter speeds for the bulbs used. The reverse side shows the increase in stops or fraction of stop required to correct exposure for every type film with each type light and color correction filter. It is made of plastic.

## Remington-Rand Offers Two Papers

Remington-Rand, Inc., manufacturers of photographic equipment for office use for 12 years, is now offering two new enlarging papers, RRembrandt and RRemlite, to all darkroom users. RRembrandt is a chlorobromide projection paper and RRemlite is a translucent paper on natural white stock mostly intended for use as a paper negative material.

### "120" Viewer

A high-grade meniscus lens is used in the new Guild "120" Viewer to give maximum magnification without distortion. Manufactured by Craftmen's Guild, 6916 Romaine St., Hollywood 38, Cal., the viewer is designed for color transparencies  $2\frac{1}{4} \times 2\frac{1}{4}$  or  $2\frac{1}{4} \times 3\frac{1}{4}$ , mounted in standard slide sizes  $3\frac{1}{4} \times 4$  or  $2\frac{3}{4} \times 2\frac{3}{4}$ . \$4.75. The viewer is non-warping plastic.

IN EVERY BIG CITY, there's one cameraman's camera store, where the bugs hang out, and where everybody stops in on his way to lunch to see if there's "anything new." In Cincinnati, happily, there are several such stores, and one of them is a little more than a slice in the wall called The Provident Camera Shop. The bugs go in and the bugs go out all day long. The owner, Nate Berkowitz, who is shaped like an egg with a perpetual smile, has been around fans so much he has taken on some of their habits. Mr. Berkowitz has invented a new camera gadget that takes shadowless flash pictures and you can buy it from him for \$1.95. The gadget is shaped like a box about four inches square. One end slips over the bulb socket of your flash attachment. (You don't use the reflector at all.) The top of the box is open. Three sides are opaque. The fourth side of the box has a cardboard screen over it. When the bulb goes off the light shoots through the open top of the box and through the cardboard screen. Result: a shadowless flash picture. It is for indoor use only because you need the ceiling reflection in addition to the light that goes through the cardboard screen to imprint your picture. The gadget weighs less than three ounces and can be folded flat when not in use. 720 Vine Street, Cincinnati, Ohio.

## SPECIAL ATTENTION GIVEN TO MAIL ORDERS!

All leading makes of photo equipment  
for professional and amateur.

### BARGAINS GALORE!

Tell us your needs . . . if we don't have  
it we'll get it. Write to Dept. M.

### CAMERA MART, Inc.

1614 N. Cahuenga, Hollywood 28  
California

#### ONLY SPEED-O-COPY

##### With Its Critical Focusing

- Gives full ground glass image and makes a perfect copying machine of your Leica, Contax, Argus C-2 & C-3, Argus 21, Porfox, Clarus or Kodak Ektra.
- Extends and broadens the use of your camera.
- Gives positive accurate ground glass focusing.
- Achieves more perfect results in ANY BRANCH of black and white or color photography.

See Your Dealer — Write for Circulars

#### D. PAUL SHULL

240 S. Union Avenue Dept. M-6 Los Angeles 26, Calif.

RELOAD ALL 35 MM CARTRIDGES

Save 50%

W. W. BOES CO.  
43 W. APPLE ST.  
DAYTON, OHIO

WRITE  
FOR  
CIRCULAR



## "PHOTOGRAPHY IS FUN It's my choice of a career"

So says *Mary Bollinger* of York, Penna.

Mary Bollinger hasn't yet won national fame but she's on her way. A recent graduate of the Progressive School of Photography, she is now operating her own studio.

"Photography is a nice career for women . . . very interesting . . . meet lots of people . . . and it's a career that can be carried on after marriage without interfering with your home", says Mary. Of her photographic schooling she comments, "The Progressive School of Photog-

raphy through its fine equipment, helpful and skilled teachers, made it possible for me to gain in a short time such knowledge of practical photography that I was able to go right to work as a professional photographer on my own."

**HOW ABOUT YOU?** Do you want a career in Photography? Then study under experts in this finest of schools. Standard courses in Portrait and Commercial Photography; Direct Color and Camera Mechanics and Repair for advanced students and professionals. Coeducational. Dormitory for men. Living accommodations assured for women and married couples. G.I. Approved. But get all the facts.

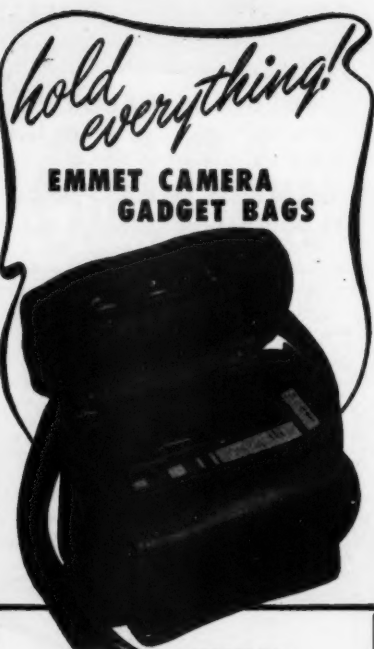
Write for Free Catalog PT 7



## PROGRESSIVE SCHOOL OF PHOTOGRAPHY

217 Park Street, New Haven 11, Conn.





## EMMET CAMERA GADGET BAGS

### CHECK THESE SUPERIOR FEATURES

- ✓ Model 1191 (shown above) for  $3\frac{1}{4} \times 4\frac{1}{4}$  Graphic, or smaller movie or still cameras with accessories.
- ✓ Top grain, Elk tanned cowhide. Black or brown.
- ✓ Adjustable, heavy-duty shoulder strap, solidly anchored into bag reinforcement.
- ✓ Pocket in lid for filters, easy to reach.
- ✓ Inner bag compartments hold camera, motor, etc.
- ✓ Protective closing on outer pocket prevents breakage.
- ✓ Stiffening in lid and sides gives camera protection.
- ✓ Sturdy, easy sliding zipper closures.

#### A Full Line of Handy Gadget Bags

- Model 536. Graphic Gadget Bag, roomy, finest construction. \$34.80.
- Model 1191. Described above. \$27.95.
- Model 518. For medium or small still or movie cameras and accessories. \$16.95.
- Model 1190. For small or medium cameras. \$11.95.
- Model 1193. For small cameras. \$7.95.
- Also Camera Hard Cases for Bolex and Graphics.

**Emmet**  
CORPORATION



2839 W. Pico Blvd., Los Angeles 6, Calif.

## MOVIE NEWS AND RELEASES

A 1948 CATALOG listing 21 new home movies in 8 and 16mm, silent and sound, illustrated, and with complete description of each film, is now available from Sterling Films, Inc., 61 W. 56th St., New York 19. Films are classified as Musical Concerts, Sports, Adventure, Children's and Special Releases.

**HOT OFF MADISON SQUARE GARDENS'** hardwood floor comes "BASKETBALL THRILLS OF '48" with highlights in the National Invitation and N.C.A.A. tournaments released by Official Films, 25 W. 45th St., New York 19, and available in 8- and 16mm feature lengths only, and 16mm sound.

**WOMAN OF THE TOWN**, nine reels, is a new exciting 16mm. production straight from the pages of American history telling the story of William Barclay Masterson, known to posterity



as "Bat" Masterson, the fightest Marshall in United States history. Claire Trevor, Albert Dekker, and Barry Sullivan are the film's leading actors. Distributed by Commonwealth Pictures Corp., 729 7th Ave., New York 19.

**D**ON'T LET anyone ever tell you that shooting stills of Hollywood movie stars is a lead-pipe cinch. Many of the stars are dyed-in-the-wool amateur photographers of the first degree. Take Dinah Shore, for instance. I won't soon forget the day I was assigned to do some fashion shots of that gal. Before I could unsnap my gadget bag, she blurted out in one breath: "Now don't you think this will make the best background for shooting against the light with a coated lens and using a flash fill-in, diaphragm stopped down to F:11 at 200th on Double X, with maybe an extension over there on the side?"

*And by gosh, she was right!*

Then there's Rudy Vallee, whom I was to catch in fast action on the tennis court. I had scarcely pulled up in my station wagon when Rudy ambled over, saying, "Hope you're using a telephoto lens today. If you stand up there



shooting three-quarters into the sun, you can catch a pip at a six-hundred-and-sixtieth on the focal-plane stopped down between F:5.6 and F:8 on Panchro B . . . and if you don't have a telephoto I can loan you one that will fit right on your lensboard."

How was I to know this guy had more cameras than Carter has pills?

So it was with Gregory Peck. On arriving to do a home layout of the Peck family, Greg greeted me at the door with: "Just in case you forgot your Rollei, I have one here—with built-in sync, flash extensions, proxars, distars, and any kind of film you need. You can develop the stuff here in my darkroom if you want an immediate check on your negatives. Have DK20, DK60A, Microdol, or buffered borax."

The lingo these guys use!

One day I was all set to do some stills of Lou Costello with his family in the den of their home. Lou entered the room and his eyes brightened—"Ha, I see you're using a Graphic, but why not the new Ektar instead of a Tessar. Made of a new kind of glass. Gives a much sharper negative. Boy, you should see the prints I get from my negs and they all go on grade 2 paper. What's more, I use a magazine back on mine, instead of those holders. Lots easier to carry around, and the sync'd range-finder with the light-beam night focuser is faster than using the ground glass."

How right, how right! But I always thought comedy was his racket.

So it goes with Rosalind Russell, Clark Gable, Cary Grant, Errol Flynn, Bob Burns, Kay

## Free! One 2 1/4x2 1/4 KIMAC "One-Step" GLASS SLIDE BINDER

No obligation! We just want you to see for yourself how easily and economically you can protect and preserve your precious negatives with KIMAC binders. Just send your name and address for free sample. Ask for special mask for V. P. or Split 2 1/4x3 1/4 Negatives.

Price for package of twelve, \$1.00

**THE KIMAC COMPANY**  
DEPT. M-6, OLD GREENWICH, CONNECTICUT

HIGHEST  
**CASH**  
PRICES  
PAID...  
*write!*

**WE BUY --- USED**  
**CAMERAS & LENSES**  
Leica Cameras & Lenses  
(all models)—Contax Cameras  
& Lenses—Telephoto  
Lenses—8 and 16mm Movie  
Cameras & Projectors (sound  
and silent). **NEEDED AT ONCE.**

**CAPITAL CAMERA**  
EXCHANGE  
1000 PENNSYLVANIA AVE. N.W. • WASHINGTON D.C.

### 35MM FILMS

negative. No mass production. 35mm films fine grain developed  
vaporated to prevent scratches—enlarged to 3 1/4x4 1/4. Beautiful  
quality prints guaranteed. Single wt. glossy per.  
36 exp. \$1.25. Double wt. Portrait paper  
\$2.00. 18 exp. roll, 80c. 1-day service. Reload-  
ing: 36 exp., 60c; 18 exp., 40c. **FREE** mailing  
bag. **24 HOUR SERVICE**

### NOT DOLLAR DEVELOPING

Your negatives deserve quality de-  
veloping. We give individual attention to each  
negative. No mass production. 35mm films fine grain developed  
vaporated to prevent scratches—enlarged to 3 1/4x4 1/4. Beautiful  
quality prints guaranteed. Single wt. glossy per.  
36 exp. \$1.25. Double wt. Portrait paper  
\$2.00. 18 exp. roll, 80c. 1-day service. Reload-  
ing: 36 exp., 60c; 18 exp., 40c. **FREE** mailing  
bag. **24 HOUR SERVICE**

**EIGHT EXPOSURE FILMS NOW AVAILABLE**  
**MINICAM PHOTO LABS., Dept. 4-B, La Crosse, Wis.**

*Gevaert has the new look too*

*... So ask for*

*New and improved*

## SUPERCHROME ROLLFILM

**SATISFACTION GUARANTEED OR A NEW ROLL FREE!**

Gevaert's New Look is in its smart new package . . . and wrapped up inside are new and even higher qualities for which this fine film is already famous.

Try Superchrome — and if you're not satisfied with your pictures do this: put your name and address on the inside of your empty film carton, enclose your exposed negatives and send them all to Gevaert, Williamstown, Mass.

We'll send you free a new roll of film plus a film analysis chart showing cause and remedy for failure.

**The GEVAERT Company of America, Inc.**  
Williamstown, Mass.

#### BRANCH OFFICES:

New York City 19—423 West 55th St. Chicago 6—150 No Wacker Drive. Los Angeles 38—6370 Santa Monica Blvd. Dallas—1604 Young St. IN CANADA: Gevaert (Canada) Limited, 345 Adelaide St. W., Toronto, 28.



### 35mm MAGAZINES 36 EXPOSURES

**PANCHROMOSA:** Fast fine grain Panchromatic emulsion. Balanced to give maximum quality, both indoors and outdoors. Produces brilliant and full-scaled enlargements.

**MICROGRAN:** Moderate speed, extremely fine grain. Panchromatic emulsion to give the critical user maximum enlargements with minimum grain.

### 16mm CINE REVERSAL FILM AND DOUBLE 8mm CINE REVERSAL\*

**ULTRA PAN:** Fast Panchromatic emulsion for motion pictures under artificial light. Excellent results can be obtained even under adverse lighting conditions.

\***SUPER PAN:** Medium speed Panchromatic emulsion for all-around use, indoors and outdoors.

\***MICRO PAN:** Moderate speed, fine grain Panchromatic emulsion for critical work which demands minimum grain.

# "BETTER PICTURES"

35MM ROLLS developed vaporated, enlarged by electric eye,  $3\frac{1}{4} \times 4\frac{1}{4}$ —\$1.25. 18 exposure rolls—75c. Extra enlargements  $3\frac{1}{4} \times 4\frac{1}{4}$ , 4c each. No. 127 split candid rolls—16 exposures—enlarged to  $3\frac{1}{4} \times 4\frac{1}{4}$ —60c. No. 127 and 120, 8 exp. rolls enlarged to  $3\frac{1}{4} \times 5$ —35c. No. 120, 12 exp. rolls enlarged to  $3\frac{1}{4} \times 3\frac{1}{4}$ —50c. No. 120, 16 exp. rolls—enlarged to  $3\frac{1}{4} \times 5$ —60c. Extra enlargements,  $3\frac{1}{4} \times 5$ —4c each. Plus 5c postage per order.

We fine-grain all films and use Eastman Electric Eye Equipment. "Quality Work—Prompt Service." Send roll and money today!

## BETTER PICTURES

2523 Lawrence Ave. Dept. M Chicago 25, Illinois

## Every AMATEUR PHOTOGRAPHER should belong to THE PHOTOGRAPHIC SOCIETY OF AMERICA

Many Valuable Services for Small Dues

Ask for Information

1815 Spruce Street, Philadelphia 3, Pa.

COLOR AT A PRICE YOU CAN AFFORD TO PAY

"PHOT-O-CHROME"  $2\frac{1}{4} \times 3\frac{1}{2}$

"SPARKLING COLOR PRINTS"

Made From Any Ansco, Ektachrome or Kodachrome Transparencies

5 x 7... 2.50 8 x 10... 4.00 (unmounted)

CLEVELAND COLOR SERVICE

3974 EAST 131st STREET CLEVELAND 5, OHIO

50c



DOUBLE SIZE IMAGE VIEW FINDER

OPTICALLY GROUND LENSES ASSURE BRILLIANT IMAGE. PARALLEL NOT BE CONNECTED FOR GLASSLESS MADE FOR 35mm and 50mm.



TRIPOD BASE AND EXPOSURE CALCULATOR

REMOVABLE MACHINES FROM SOLID BAR STOCK AND HEAVILY MACHINED BRACKET OF STEEL. FINISHED IN BLACK CHROME. EXPOSURE CALCULATOR SAVES PINCHES. PICTURES BY EASY UNDOING. READING.



PRECISION FOCUSING MOUNT

ADJUSTABLE FOCUSING SCALE. ENLARGING MOUNT. BE CLOSED AS A FEET FOR 1/4 IN. LENS AND DOWN TO 10 FEET FOR THE 1/4 TELEPHOTO LENS. ALSO MADE FOR USE WITH BOTH LENSES AT SLIGHTLY HIGHER PRICE. SPECIFY LENS WHEN ORDERING.



BATTERY CARRIER

IS REGULAR FLASHING CELLS. COMPLETELY ENCLOSED. VOLTAIR FOR LOWER TO 35 IN. 35mm CAMERAS. HAS CLIP BELT ATTACHMENT. 100 THROUNDER BELT.



FILM CANISTER

DO NOT TOUCH PACKAGES. EXTENSION NEW MEASURES. ONLY \$4.95. NO LIMIT !!!



CONVERTED 8.8mm CAMERAS

COMPLETE WITH GROVER ACCESSORIES LISTED HERE—\$55.00



INSTRUCTIONS FOR THE CONVERSION OF THESE CAMERAS WILL BE SENT FREE OF CHARGE WITH YOUR ORDER.

ALL OF OUR MERCHANDISE CARRIES A MONEY-BACK GUARANTEE.

ASSOCIATED SURPLUS COMPANY.

10838 VENTURA BLVD., NO. HOLLYWOOD, CALIF.

# PROJECTION POSITIVES

The most thrilling way of presenting your pictures. "Printed from your 35mm film (single frame or single frame Mercury size) without changing them in any way. Projection Positives are made on an extraordinarily fine grain film with each negative INDIVIDUALLY exposed. Viewed in a small viewer or projected on the wall, on a screen, or on a screen, the wide tonal range, the three dimensional quality, the sparkling brilliance which only Spiratone Projection Positives can reveal in your pictures. Let us make transparencies from your old pictures, or you can receive these happy memories. And the more you have, the more you want. Call or write for free color film grain, development, and Projection Positive information.



Spiratone FINE GRAIN LABORATORIES

49 W. 27th STREET, NEW YORK 1, N. Y.

## 35MM BLACK WHITE TRANSPARENCIES

FROM UNCUT 35MM ROLLS: 20 EXP. ROLL 68c; 36 EXP. ROLL \$1.08; 48 EXP. ROLL \$1.60. FROM STRIPS HAVING LESS THAN SIX EXPOSURES, BUT NO SHORTER THAN 415 INCHES IN LENGTH, OR SELECTED BY FRAME NO.: EACH FRAME 10c.

Complete price list of other 35mm services, black and white and color, on request to Dept. PP.

A Spiratone Specialty Ansco 35mm Daylight Reload, including metal cartridge, \$1.25 postpaid.

Kyser, Tyrone Power, Edgar Bergen, Dick Powell, Claudette Colbert, and—oh nuts, a cameraman can get darned self-conscious in this burg.

A CLUB WHOSE MEMBERS buy one film and can use nine others is a unique idea promoted by Round Robin Films, 369 Lexington Ave., New York 17. Here's how it works. A person becomes a Round Robin member by purchasing one film after which he is assigned to a roster comprised of nine other members. Each member sends his film to the member whose name succeeds his on the roster, receiving, in return, a film from the member whose name precedes his. This change is made twice a month for five months, after which the purchaser receives and keeps the film he bought originally. A six months' guarantee covers the repair or replacement of damaged or lost films. There are no dues, fees, or rentals. Only expenses are the small postage charges.

## Other Notable Releases

\*Encyclopedia Britannica Films, Inc., Wilmette, Ill., announces release of 17 new Home Series productions in 8- and 16mm including AESOP'S HARE and TORTOISE, A LOST WORLD, PETER RABBIT'S ADVENTURE, three films of baseball, films inside Russia before the Iron Curtain fell, and other educational releases.

\*United World Films, Inc., 445 Park Ave., New York 22, has a new free illustrated catalog of Motion Pictures for Churches, describing more than 125 outstanding religious subjects now available to churches and schools.

\*World in Color Productions, Elmira, N. Y., has added a second edition of the unusual "golden cities of stone" to be spliced onto their feature film, Bryce Canyon, thereby giving a double length showing of this

beautiful National Park. Reels 1 and 2 are each 50 feet in length in 8mm and 100 feet each in 16mm silent, available in black and white or color.

**\*PATTERN FOR PEACE—CHARTER OF THE UNITED NATIONS** is a film drawn up in the spring of 1945 at the San Francisco Conference. It is two reels, 15 minutes, 16mm, distributed by British Information Services, an agency of the British Government with offices at 30 Rockefeller Plaza, New York; 360 N. Michigan Ave., Chicago 1; 907 15th St., N.W., Washington 5, D. C.; and 391 Sutter St., San Francisco 8.

**\*On the lighter side Library Films, Inc.,** 25 W. 45th St., New York 19, is releasing 11 new Laurel and Hardy comedies, raising to 39 the total film releases of this team.

**\*MAGNIFICENT DOLL,** 11 reels of 16mm sound, relates the fascinating story of Dolly Madison, the charming and high-spirited wife of our fourth president. Ginger Rogers, David Niven, and Burgess Meredith are starred.

## 35 MM FILM FINE GRAIN

DEVELOPED, VAPORATED  
AND ENLARGED

\$1

**MINILABS**  
STILL FIRST IN 35 MM  
FINE GRAIN  
FILM PROCESSING, DIRECT BY MAIL

36 exposure roll of film processed & enlarged to 3x4 inches **\$1.00**

8 exposure rolls enlarged to approximately twice negative size for only **35¢**

*Ask for Free Booklet Magazine, "Pictures."*

**MINILABS** INC.  
INGLEWOOD, NEW JERSEY

Box 485



***You Could make scrolls like this\****

***— but it's so much easier with the***

### MULT-EFEX TITLER

• Insert scroll title thru washing machine wringer, turn on light, sit 8 ft. from title, lean on dog, pull cord to start wringer, start camera. Next time you'll use a Multi-Efex!



There are many ways of making scrolls but the easiest, most effective way is with the Multi-Efex... used by 8mm and 16mm movie makers all over America. It is a complete unit for filming countless variations of Hollywood type titles and special effects for just \$28.00 plus tax.

For more on what the Multi-Efex can do write for this folder to Dept. 2F.



Ask about our famous spotlights too

BARDWELL & McALISTER, Inc.

Box 1310 Hollywood 28, California

19

## Learn GLAMOUR PHOTOGRAPHY

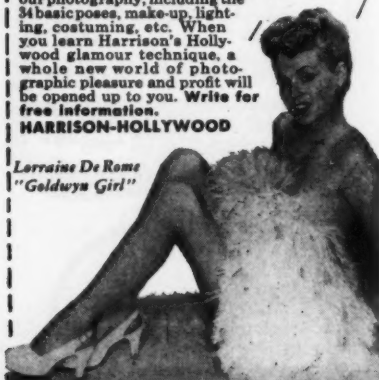
BY MAIL

**FOR AMATEURS**  
**Seeking to Perfect Their Art**  
**FOR PROFESSIONALS**  
**Looking for Greater Profits**

The only complete home study glamour course, with authentic texts, illustrations, and the personal coaching of the internationally famous glamour photographer, W.R. Harrison. Learn Hollywood secrets of glamour photography, including the 34 basic poses, make-up, lighting, costuming, etc. When you learn Harrison's Hollywood glamour technique, a whole new world of photographic pleasure and profit will be opened up to you. Write for free information.

**HARRISON-HOLLYWOOD**

Lorraine De Rome  
 "Goldwyn Girl"



**AIR MAIL COUPON TODAY!**

Harrison Studios, 8661 W. 3rd St.  
 Los Angeles 36, California, Bus. Dept. A-6

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

**35MM — 20 EXPOSURE ANSCO COLOR FILM**  
**DEVELOPED ..... \$1.00 PER ROLL**

**& MOUNTED FREE**

**ALL SIZES ANSCO AND EKTACHROME COLOR**  
**FILM DEVELOPED ..... \$1.00 PER ROLL**

**A Complete Quality Color Print Service**

**•Photoslides•**

66 West 53rd Street  
 New York 19, N. Y.

## GADGETS, KINKS AND SHORT CUTS

**NOTES ON BUILDING AN ENLARGER**, the new Kodak pamphlet which provides down-to-earth practical information for constructing your own homemade enlarger, is now available free from the Sales Service Division, Eastman Kodak Co., Rochester 4, N. Y. The leaflet discusses basic enlarger ele-

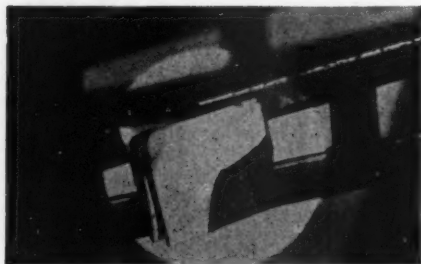
### Improving Balance Scales

Here are some suggestions to improve the operation of your darkroom balance scales—the kind that have two pans; one for the chemical and the other for the weights.

To keep the pans clean, coat them with a clear lacquer. Renew as required.

Paper baking cups, which cost about 12c per hundred, make ideal tray papers as the chemicals will not spill out of them.

So that two cups will not be required when weighing, make a counterweight as follows: Cut a strip of tin from a can approximately 1/2-inch wide and 2 inches long. Bend it in the shape of a hook as shown in the illustration and hang it on the weight pan side of the balance beam.



Now place a baking cup on the weighing pan and slide the tin counterweight along the beam until it balances the paper cup. Check several times by removing the weight and replacing it. The beam should return to balance each time that the counterweight is replaced. If the tin strip is too heavy, small sections can be clipped off until the correct weight is obtained.



the NEW **Steky** IMPORTED

**FINEST 16MM. CANDID STILL CAMERA**

Features a fine f3.5 anastigmat lens - variable shutter speeds - bulb, 1/25, 1/50, 1/100 of a sec. - optical view finder - a truly economical miniature camera - gives you 24 brilliant, clear pictures 10 mm. x 14mm. - uses either color B & W 16 mm. film - easy to load -

Send your order for a STEKY today to  
**\$3950 MORGAN CAMERA SHOP**

6262 Sunset Boulevard

Hollywood 28, California

Duplicate weights can be made from either lead, copper, or brass stock. Take the weight that you wish to duplicate and lay it on the new material and mark off the size slightly larger than the old weight and cut out. Then place the old weight on one pan of the scale and the new on the other. File off material as necessary from the new weight until it balances the old. To check, reverse the weights on the pans. If they re-balance, mark the new weight with the amount it represents and continue on to the next replacement. By using old and new weights together it is possible to greatly extend the capacity of the balance.

—Louis Arbuckle.

#### Processing Motor

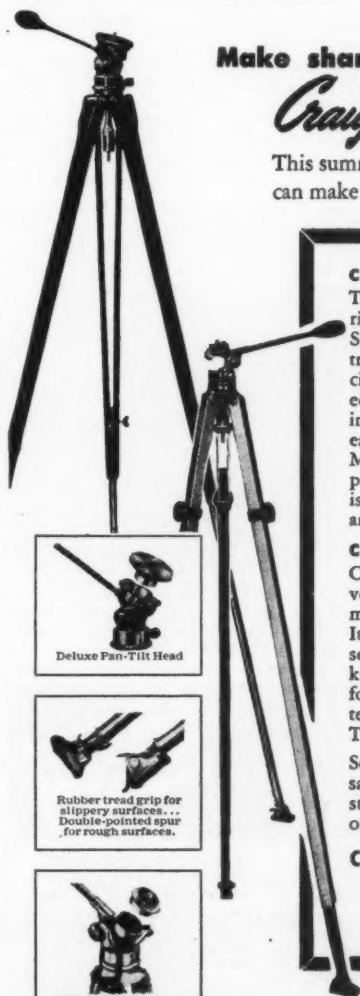
If an old-time hand-wound phonograph is available, or can be purchased at a second hand store, the amateur movie maker who processes his own films can have an efficient and inexpensive motor to turn his processing reel.

The one illustrated is a real old timer from which the turntable could not be removed. A 5-inch pulley made from two circles of 1/4-inch plywood was centered over the spindle and bolted to the metal turntable by drilling and tapping a hole in the table. A second pulley was made the same size as the first and used on the shaft of the processing drum. The pulley

Make sharper, clearer pictures—use a

## *Craig thalhammer tripod*

This summer—wherever you go, whatever you do—you can make better, steadier pictures with a Craig Tripod.



Deluxe Pan-Tilt Head

Rubber tread grip for slippery surfaces...  
Double-pointed spur for rough surfaces.

Midget Pan-Tilt Head

#### CRAIG THALHAMMER B/L TRIPOD

The Craig Thalhammer B/L Tripod has rigid two-section legs for steady support—Sure Foot Points swing either to rubber tread or double pointed spur to hold a tenacious grip on any rugged surface—patented Instant-On Plug locks camera to tripod in one easy action—"panning" is smooth... easy... with the Deluxe Pan-Tilt Head. Made of durable hardwood and chrome plated steel construction, the B/L tripod is always ready to add to your pleasure and performance.

#### CRAIG THALMETAL TRIPOD

Craig Thalmetal Tripod is lightweight favorite with all 8 mm and lightweight 16 mm movie cameras and all popular still cameras. It has the famous Sure Foot Points—two-section legs of aluminum and wood and knurled adjusting knobs. The Thalmetal folds to a compact 32" carrying size—extended height of 60". It has Midget Pan-Tilt Head and Instant-On Plug.

See these two Tripods at your dealers—sample their smooth efficiency, check their sturdy, rugged construction—you'll want one for yourself!

#### CRAIG MANUFACTURING CO.

1823 South Hope Street  
Los Angeles 15, California





## WATCH FOR ARGENT MONTHLY SPECIALS!



COMBINATION OFFER—Regular \$10.87 Value only

- Daylight Bulk Film Loader
- 100 ft. 35mm Film (Frame Numbered)
- 5 empty Metal Cartridges

**\$8.95**

IMMEDIATE DELIVERY  
ARGENT SPECIALTIES

312 7th Ave. (Room 704) New York, N. Y.

## 35MM POSITIVE TRANSPARENCIES

1 Roll 36 Exposures 65c  
3 Rolls \$1.75; 6 Rolls \$3.25

We will print 35mm. safety film positives from your 35mm. full strip negatives only for projection from 2" x 2" slides or from the full strip. Returned intact. Fine grain developing of 35mm. negative 25c. Reloaded cartridges of 35mm. film 50c. Vaporizing 5c. roll; negative or positive. 36 35mm. Card-board Slide Mounts, 50c. Send for slide catalogue and free mailers.

POSITIVE PRINT CO. 1447 Main Street, Rahway, N. J.

A PROFITABLE TRADE! AN EXCITING HOBBY! *Learn...*

**\$21.50**

## PHOTO NEGATIVE RETOUCHING

Increase your income... Improve the quality of your own photography. New 5-week home study course—1 lesson each week—will teach you how. Complete course and all necessary equipment only \$21.50

SEND IN THIS HANDY COUPON TODAY! Remember, if you are not completely satisfied and return the first lesson in good condition within 5 days, you will receive a full refund.

MARSHALL PHOTOGRAPHERS, Inc.

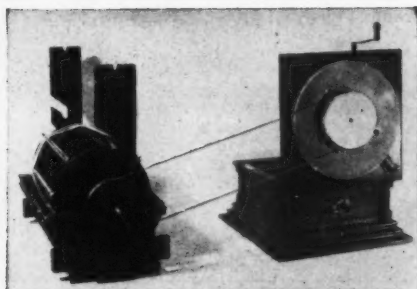
162 N. State St., Chicago 1, Ill. Retouching School Div., Dept. M-6

- ☐ I enclose \$21.50. Send each lesson prepaid.  
☐ Send course C.O.D. I'll pay postage on each lesson.  
☐ Send information and easy payment plan.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_



belt is simply a length of chalk line or heavy cord.

The speed of the motor is just right for film processing, turning the drum about 25 rpm. The spring-powered motor will run for about fifteen minutes without winding. It is best to wind it a few turns every few minutes, however, as this keeps a more even tension on the motor.

—George Carlson.

## Simple Sheath, Plate, or Film Removing Aid

A discarded roll film spool is a handy tool for aiding in the removal of sheaths, plates, or film from holders as can be seen by the illustration.



With some holders, such as those with a spring sill, it is almost impossible to remove these items without breaking fingernails. This kink prevents this from happening.—H. Klein.

# FREE 24 HOUR AUTOMATIC MACHINE PROCESSING SERVICE ON ALL SOLAR FILM

**SATISFACTION  
GUARANTEED  
OR  
MONEY BACK**

## SOLAR TYPE 12

(Weston 12)  
OUTDOOR FILM  
ORTHO NON-HALO

|                   |               |
|-------------------|---------------|
| DOUBLE            | <b>\$1.59</b> |
| 8mm.....          |               |
| 16mm—50 Ft. ....  | <b>\$1.90</b> |
| 16mm—100 Ft. .... | <b>2.30</b>   |

## SOLAR TYPE 24

(Weston 24-16)  
OUTDOOR-INDOOR  
NON-HALO PANCHROMATIC

|                   |               |
|-------------------|---------------|
| DOUBLE            | <b>\$1.89</b> |
| 8mm.....          |               |
| 16mm—50 Ft. ....  | <b>\$2.50</b> |
| 16mm—100 Ft. .... | <b>4.95</b>   |

## FOR THOSE HARD-TO-GET SHOTS — SOLAR TYPE 100

(Weston 100-84)  
ALL INDOOR MOVIES AT HOME?  
SPORTS? ETC.

|  |               |
|--|---------------|
| SUPER SENSITIVE PANCHROMATIC<br>DOUBLE | <b>\$2.00</b> |
| 8mm.....                               |               |
| 16mm—50 Ft. ....                       | <b>\$3.15</b> |
| 16mm—100 Ft. ....                      | <b>5.95</b>   |

## GET ACQUAINTED WITH ALL THREE

RUSH YOUR ORDER NOW!! for the finest film you've ever used. Favorite of discriminating movie-makers since 1937. Send full amount and save shipping charges or send \$1.00 for C.O.D. deposit. Illinois residents please include 2% Sales Tax.

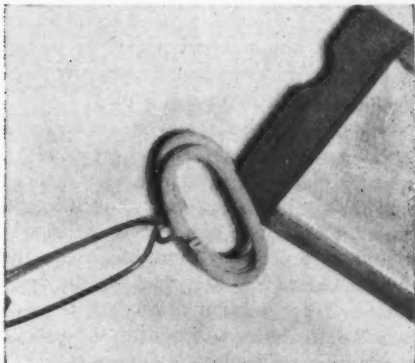
SOLAR CINE PRODUCTS, INC., 4247 So. Kedzie Ave., Dept. M1 6, Chicago 32, Illinois

**WRITE FOR  
CIRCULAR**



### Clamp for Light Gluing

Wooden holders sometimes loosen from constant use, usually near the light trap, and if not repaired immediately will fog the edge of the film in use.



A dab of adhesive, plus the pressure from the clamp of your photoflood reflector to hold the joint while drying, will insure a good glue job. —H. Klein.

### Bomber Motors Useful

Dozens of tiny 6 to 24 volt electric motors were used on war planes, and are now being sold as surplus at small cost. These have unlimited uses in the darkroom. By connecting them in series with a 60-watt lamp, they can be operated from 110-volt current. They can be mounted for chemical mixers by attaching a plastic rod to the drive shaft. By attaching a sweep hand, similar to that of a clock, with a white tip, the motion of the sweep hand can be photographed and the arc of motion allowed is an excellent check on shutter speeds. Most of these small motors work at 6000 to 7000 rpm. With suitable reduction gears, they will work as film agitators, small blower motors, for darkroom ventilation or negative drying, and for similar purposes. Be sure to get a Universal or A. C. type if your current is A. C., however. —Ross Madden.



## Now! 2 GREAT NAMES....



### LINKED TOGETHER FOR GREATER SERVICE TO THE PHOTO FAN

The General—America's leading photo equipment dealer—proudly announces the opening of America's most complete retail camera store, located in the world's largest building—Chicago's Merchandise Mart. With these greater facilities, The General is equipped better than ever to continue its leadership in the photographic equipment field.

Order this easy way—for THE GENERAL'S "PAY-AS-YOU-SHOOT" PLAN

1. Select the equipment you want, and total your entire order. (Note: you get a 10 day FREE trial on all purchases.)
2. Determine and include your down payment (not less than 10% or \$5.00, whichever is greater); trade-ins accepted as down payments, too.
3. State on coupon the monthly payments you can make.
4. Mail your order, down payment and short note telling us about yourself, your occupation and two references.

### FREE!

The General's new Photo Equipment Buying Guide. Send for your copy now!



- 8mm MOVIE CAMERAS**  
(A) Beyer "88" F/2.5 \$77.50—\$7.75 Down.  
Revere "89" Turret, F/2.8 \$110.00—\$11.00 Down.  
(B) Revere "79" Magazine, F/2.8 \$127.50 \$12.75 Down.  
Ertikin "8" Magazine, F/2.5 \$79.95—\$7.99 Down.  
(C) Perex "88" Magazine Turret, F/2.5 \$99.50—\$9.95 Down.  
Flimo Auto. S. 1/2" F/1.9, 1 1/2" F/3.5 \$299.50—\$29.95 Down.  
**16mm MOVIE CAMERAS**  
(D) Revere "16" Magazine, F/2.5 \$127.50 \$12.75 Down.  
Solex M 16 with frame counter, lens, lens, \$282.50—\$28.25 Down.  
**8mm Autoload Speedster**, F/1.9 \$214.08 \$21.40 Down.  
Cinkins, F/2.5 \$79.15—\$7.91 Down.  
**35mm CAMERAS**  
Cinlar Outfit, F/2.8, case, \$134.08—\$13.40 Down.  
(E) Argus C3 Outfit, F/3.5, case, \$74.71—\$7.47 Down.  
Perlex 1-0-1, F/4.5, Alpha Shutter, \$59.95—\$5.99 Down.  
Leica III C, F/3.5 Elmar, \$332.50—\$33.25 Down.  
**PRESS CAMERAS**  
(F) 2 1/4"x3 1/4" Busch Pressman Outfit, F/4.5 in Rapax and R.F., \$171.24—\$17.12 Down.  
4"x5" B&J Press Outfit, F/4.7 in Rapax and R.F., \$173.50—\$17.35 Down.  
(G) 2 1/4"x3 1/4" Speed Graphic Outfit, 101mm Optar, Flash Shutter, R.F. and Flash Unit, \$288.66—\$28.86 Down.  
**REFLEX and FOLDING CAMERAS**  
Reamer I, Achromat, \$29.75—\$2.97 Down.  
Reamer II, F/4.5, \$48.00—\$4.80 Down.  
Argusflex, F/4.5, case, \$69.63—\$6.96 Down.  
(H) Gireflex, F/3.5, 1 1/2" X 2 1/4" \$76.08—\$7.60 Down.

### MAIL COUPON TODAY

THE GENERAL CAMERA CO.  
2308 M. W. DEVON AVE., CHICAGO 45, ILL.  
Rush the equipment on attached order. If not completely satisfied I may return all or part of order within 10 days for refund. I am enclosing my letter and \$..... as down payment. I agree to pay \$..... per month until merchandise is paid for. \_\_\_\_\_ as down payment.  
( ) I am over 21 ( ) I am under 21  
Name .....  
Address .....  
City ..... Zone ..... State .....

**The General Camera Co.**  
2308 M — W. Devon Ave. Chicago 45, Ill.

**3 1/4 x 4 1/2  
ENLARGEMENTS  
FROM YOUR  
35mm FILMS  
LESS THAN  
3¢ EACH!**



## WHY PAY MORE?

**36 Exposure 35mm roll FINE GRAIN**  
developed and with every frame  
**ENLARGED to 3 1/4 x 4 1/2. ....\$1.00**  
**20 Exposure roll. ....65c**

(Single frame negatives enlarged to 3 1/4 x 2 1/4)

**Your order is rushed back to you.**

## LOW PRICES FOR RELOADS

**Fresh, Fine Grain Panchromatic Film**

**36 Exposure Reloads. ....45c**  
**20 Exposure Reloads. ....30c**

### MONEY BACK GUARANTEE

#### SAVE AN EXTRA 10%

Send \$5.00 for an R.L. Coupon book today ...  
good for \$5.50 worth of our services.

Write Dep't 3 for complete information.

**ROCHESTER**  
*Laboratory*  
INC

BOX 199, ROCHESTER 1, NEW YORK

**Rochester Made Means Quality**

### GORGEOUS GIRLS

Hollywood's Most Beautiful Models Posed  
in Thrilling Masterpieces of Pin-Up Art

**EACH DIFFERENT—NO TWO ALIKE**

2x2 Kodachromes, 2-\$1, 5-\$2, 10-\$4, 15-\$6  
35mm transparencies, unmounted 15-\$1, 35-\$2, 60-\$3  
35mm negatives 10-\$1, 25-\$2, 45-\$3  
2 1/4 x 3 1/4 negatives, each \$1, 5 for \$4  
Pin-Up Photos 10-\$1, 25-\$2, 60-\$4

Free Offer: Select \$6 worth; send only \$5; get \$1 worth FREE.

**FINE ARTS FILM CO. (MP)**

P. O. Box 2084

San Antonio 6, Texas

## SLIDE MOUNTS

Patent Pending

2x2

35mm

Just slide your film into the mount. That's all!  
No hot iron, press, adhesive, or moistening! So easy  
and quick! Carton of 36 mounts, postpaid, **\$1.00.**

California purchasers please add sales tax.

**FRIEDEL, 323 Fox Oakland Bldg., Oakland 12, Calif.**

## Otto Bettmann

(Continued from page 83)

photographer who finds himself native to a huge metropolis is advised to attack his particular home neighborhood as though it were an independent community. This is the way that Bettmann works:

Invariably, he arrives in town cold, without having done any previous research. Unless it is a matter of general knowledge, he will probably not have the slightest idea how old the village is, who founded it or what kind of people live there. Later, he may read in the local library, from original documents if possible, but first he goes straight to the antique shops. There, a birdseye glance tells him about the taste, the economic circumstances and the cultural background of the populace. There also, by browsing (often to the extreme irritation of the shopkeeper) he will come across old newspapers, illustrated catalogues, and even long-lost certificates of birth, marriage and death, all of which go under his lens to come out as crystal-clear 5x7 glossy prints. His Leica (50mm lens) somehow misses the depths and roundness of the old camera portraits. The Leica is quite satisfactory, however, for engravings, lithographs and woodcuts, although care must be taken to pick up all the fine lines of an engraving.

After the antique shop comes the postmaster. He always knows everything about everybody and sometimes sends Bettmann on to valuable sources of color and information. Local ministers and physicians, too, are helpful, once he has convinced them of his serious, historic purpose.

In his time, Dr. Bettmann has uncovered some startling family skeletons but, being a prudent and considerate person, he has hastily buried them again.

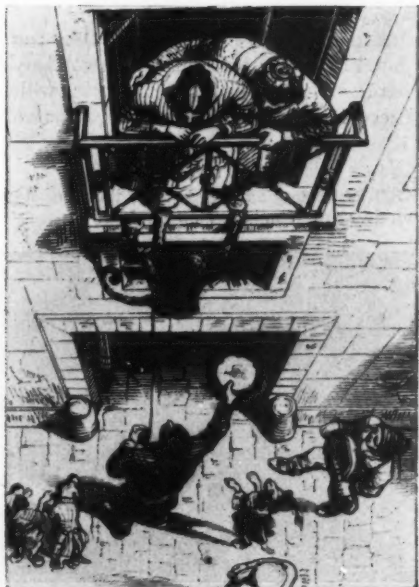
Although his interest in the folkways of his adopted country is evidenced in his current book *As We Were*, which abounds with candy-pulling, horse-shoe pitching, cider-making and other aspects of the old

oaken bucket era, the backward photographer's collection still bulks largest in his first enthusiasm, medical history.

One of his odd prints made news in 1934 when the Dionne quintuplets were born. Was this the first recorded instance of five births? Yes, said many prominent physicians. No, said Otto Bettmann and triumphantly produced a picture of a Dutch painting dated 1719, showing a mother and attendants and five new-born infants. Then, to cap it, he brought out another picture detailing the gravestone inscription of a German Countess named Margaret of Henneberg who died under a curse in 1611 after giving birth, the marker reported in true Barnum style, to no less than 365 children. This weird record is part of Bettmann's huge file on medical superstitions.

Emphasis in the collection is on the sparkling, the unusual and the intensely

**PHOTOGRAPHIC** perspective isn't anything new, as this print from the Bettmann Archive reveals. Parisian courtyard with street singers. Circa 1840. By J. J. Grandville (1803-47).



Spotlight on

## HENRY HERBERT

for Featured Specials

### 35MM CAMERAS

|  |          |
|--|----------|
| Kodak Retina F3.5 Ektar lens and case              | \$ 60.00 |
| Mercury II F2.7 Tricolor lens, flash att. and case | 65.00    |
| Perflex de Luxe F2.8 coated lens—Eveready case     | 85.00    |
| Kine Exakta F3.5 lens and case                     | 150.00   |
| Bolsey Reflex F2.9 Alpar lens—case                 | 250.00   |
| Contax Model II 5cm. F2 Sonnar—case                | 175.00   |
| Contax Model II F1.5 Sonnar                        | 250.00   |
| Contax Model III F2 Sonnar lens—case               | 275.00   |
| Contax Model III F1.5 Sonnar lens—case             | 340.00   |
| Richard Verascope Stereo F3.5 Berthiot—case        | 350.00   |
| Contax Model I, F2 Sonnar lens—case                | 130.00   |
| Argus CII F3.5 lens—case                           | 43.00    |
| Baldina F2.8 Tessar lens                           | 39.00    |

### ROLL FILM CAMERAS

|   |          |
|---|----------|
| Super Ikonta A F3.5 Tessar                        | \$ 85.00 |
| 3A Kodak F6.3 K. A.                               | 35.00    |
| Ikontaflex Model I F3.5 Novar—case                | 100.00   |
| Argoflex F4.5 lens—case                           | 55.00    |
| Primaflex F3.5 105MM Tessar and F4.5 135MM Tessar | 225.00   |
| Exakta Model A F2.8 Tessar lens                   | 75.00    |

### FILMPACK CAMERAS

|  |          |
|--|----------|
| Ermanox Reflex F1.8 Ernastar, 6 holders, FPA—case                  | \$175.00 |
| 2 1/4 x 3 1/4 Series II Grallex F4.5 K. A. lens FPA                | 120.00   |
| Miniature Speed Graphic F4.5 Ektar coated, Flash shutter—Kalart RF | 175.00   |
| 3 1/4 x 4 1/4 Speed Graphic F4.7 Ektar lens—Meyer RF—Heiland gun   | 227.50   |
| 9x12 cm Recomar F4.5, Kalart RF, 3 holders, FPA—case               | 100.00   |
| 4x5 B & J Press, 5" F4.7 Ektar, new camera, used lens              | 99.00    |

### LENSES

|  |         |
|--|---------|
| 16" F5 Gundlach Portrait lens in barrel                      | \$50.00 |
| 20" F5.6 B&L lens in barrel                                  | 125.00  |
| 12" F4.5 B&L Tessar in Betax shutter                         | 150.00  |
| 15" F5.6 Optar in barrel                                     | 125.00  |
| 15" F5.6 Wollensak Telephoto coated—Betax No. 4 shutter      | 180.00  |
| 12" F6.3 Kodak Commercial Ektar coated, Ilex Synchro Shutter | 250.00  |

SOLD ON A TEN DAY MONEY BACK GUARANTEE



## HENRY HERBERT

485 Fifth Avenue  
New York 17, N. Y.

# COLOR PRINTS 40¢

2 1/4"x3 1/4" unmounted in lots of ten or more (assorted if desired.)

|                       |             |
|-----------------------|-------------|
| 2 1/4"x3 1/4" Mounted | .....\$ .50 |
| 3 1/4"x4 1/4" Mounted | ......75    |
| Unmounted             | ......65    |
| 5"x7" Mounted         | .....2.00   |
| 8"x10" Mounted        | .....3.00   |

FROM ANY SIZE TRANSPARENCY UP TO 5"x7" INCLUDING 35MM

Subject composed and cropped where it will improve the picture. All mounted prints in attractive folders.

Please remove all glass from transparencies before sending.

Send for Price List of Black-and-White Prints in Leatherette Loose-Leaf Album.

MINIMUM ORDER — \$1.00

Please Enclose Remittance with Order



No Additional Charge for Postage or Packing.

**PHOTO LAB, INC.**

3825 GEORGIA AVENUE, N. W.

SUITE 268

WASHINGTON 11, D. C.



**the RAY SCHOOLS CHICAGO**

PROFESSIONAL PHOTOGRAPHY COURSES to meet the new trends in Business. All phases of advertising, promotional and portrait work. Classroom work in Lighting, Operation of Camera, Developing, Retouching and Finishing. Tinting, Copying and Air Brush included. Training under the G. I. Bill available. Personal training, individual advancement, finest equipment. Day and Evening classes. Write

**THE RAY SCHOOLS**

116 So. Michigan Boulevard, Dept. 29, Chicago

## Fine ENLARGEMENTS Only

The ULTIMATE in PHOTOFINISHING by PROJECTION for the CRITICAL CAMERA ENTHUSIAST.

Request our Newest Free Folder on quality Enlargements and Photofinishing Services today!

**Projection Print PHOTO SERVICE**

P.O. Box 97 Universal City, California  
Makers of the "Enlargement"

- Three Personalized 35MM Flashing Services
- Ultra-Fine Grain Developing
- Price-Winning Enlargements

## THE BODY BEAUTIFUL

Here is a set of 12 glamorous 2x2 Kodachromes featuring Fifé, celebrated French dancer, that are unmatched in beauty, brilliance and clarity and will be wanted by every color fan.

Price per set of 12 slides only \$5, prepaid. COD's accepted.

FINE ARTS FILM PRODUCTIONS (MP)

P. O. Box 2064

San Antonio 6, Texas

human aspects of history. The backward photographer has noted the hopes and aspirations of the past (sketches for inventions, early attempts at flight, etc.) as well as its accomplishments. The first lump sum that Bettmann earned in this country hinged on a publisher's conviction that the backward photographer could make a dull, heavy world history fun to look at.

"How much do you want," the publisher asked him, "to illustrate this book?"

Bettmann took a deep breath, added several hundred to what he thought he could get. "Eight hundred dollars," he mumbled, polishing his glasses and his bald spot at the same time.

"Let's make it an even thousand," came the reply. "Just so you'll feel better."

The Bettmann Archive may have to look to posterity for fame but it has already made a tidy sum for its owner in the present. Advertising firms were quick to see the display value of the quaint old prints which have been selected with such an eye to modern pictorial standards. One company that manufactures a pain-killer in tablet form, for instance, ran an old woodcut of a strapped-down patient struggling in a dentist's chair and contrasted it with a bland-faced modern gulping down a pill fizzling in a glass of water.

A designer of luxurious bathtubs compared his silver and black Hollywood-style fixtures with a gay nineties invention which stressed modesty, providing the bather with

OLD PRINT in giant size became theme of store anniversary. Gimbel's, New York, 1947.



a shoe-shaped tub that covered him up to the chin. A high-priced women's wear store in New York blew up a set of his ancient fashion plates, made them the background of a prize-winning window display. Schools, museums, libraries, authors, movie studios and government offices are also among his customers.

Bettmann's all-time best seller is a picture captioned, "Air Conditioning, 1664" a sketch by a fifteenth century Rube Goldberg, showing a Medieval family sitting around a dining table being cooled by a ventilating fan. It has been used in the advertisements of air conditioning companies, manufacturers of table wear, power transmissions, and in exhibits of weird inventions. The picture has everything, he thinks—human interest, novelty, artistic composition.

The type of picture most in demand at the moment is the gay nineties fashion-plate, illustrating what women's clothing designers are calling "the new look," which Bettmann has had no trouble in proving to be as old as the hills. One prominent courier gives frank credit to the Bettmann collection for his season's creations and not a few, in the past, have adapted his illustrations without bothering to credit. They have also inspired wallpaper designers, industrial engineers, toy manufacturers and costume makers. Bettmann thoroughly enjoys seeing his collection influence the contemporary scene.

Biggest "clinker" in the collection is his file of photographs of famous paintings. For a long while, nobody wanted them. Advertising and commercial clients were primarily interested in eye-stoppers, not art. But the effort was far from wasted. Today, many of the originals no longer exist and art museums, university libraries and private collectors are bidding for the Bettmann copies.

For the use of each print, Bettmann charges \$5 to \$100, but will cheerily send any number to a prospective client on approval. The publication of prints brings forth a flood of correspondence with scholars, some of whom try to pick holes in Bettmann's research. But they have never



## Free... NEW, BIG PHOTOGRAPHIC CATALOG

Keep up with what's new in the camera and photographic equipment field, with this beautiful new book.

**MORE THAN 120 PAGES!** Big 8 x 11 inch pages — 8 in full color, balance in rotogravure. Over 1,000 pictures of equipment!

**MANY NEW CAMERAS!** New movie cameras! New still cameras — plus old favorites. Included is a line of highest quality imported cameras.

**MORE ACCESSORIES!** Projectors, enlargers, developing tanks, flash guns, spotlights, reflectors, printing boxes, tripods—everything you need.

**NEW SOUND FILM!** Official U. S. Government produced 16 mm educational sound films.

**HOW-TO-DO-IT EDITORIALS!** More than 14 pages of information and instruction — plus dozens of hints on picture making.

Book also contains Wards complete line of binoculars, telescopes, microscopes, weather instruments, and sun glasses. Send for your free copy today!

### MONTGOMERY WARD

Chicago • Albany • Baltimore • Denver  
Ft. Worth • Kansas City • Oakland  
Portland, Ore. • St. Paul

MONTGOMERY WARD MP-48  
Please send me the 1948 Photographic catalog.

Name.....

Address.....

Postoffice.....State.....



# Succeed IN Photography

LET  
**AMERICA'S OUTSTANDING  
INSTRUCTION STAFF**  
ASSIST YOU . . .

Scores of our graduates  
are making good!

You, too, can profit from  
our thorough, up-to-the-  
minute training program.

**ALL COURSES  
G.I. APPROVED**

*Write today for free catalog*

**OUTHWEST PHOTO-ARTS  
INSTITUTE**

1709 FOREST AVE. DALLAS 15, TEXAS

## DISTRIBUTORS WANTED

Make Big Money Selling  
Our New Sensational Films

**SEND FOR SAMPLE TODAY**

**\$10.00 S O F \$7.50 16mm Sil. \$2.50 8mm**

*And Receive Our Free Wholesale Price List*

**INDEPENDENT FILM CORPORATION**

6710 Melrose Ave.  
HOLLYWOOD 38, CALIFORNIA

**35 MM**  
*Quality*  
**DEVELOPING**  
**36** FULL  
SIZE 1.25  
3 1/4 x 1 1/2  
ENLARGEMENTS

INDIVIDUAL ATTENTION EACH NEGATIVE  
No automatic or mass production  
machinery used. Your film fine  
grain developed and vaporated  
to prevent scratching. Exact  
workmanship. Highest quality  
developing. Write for **Free** mailers  
and other **Outstanding Offers**.  
**WE HAVE FRESH FILM**  
**UNIVERSAL**  
**PHOTO SERVICE**  
Box 612B, La Crosse, Wis.

## STUDIES IN BEAUTY

Featuring Hollywood's Most Beautiful Models  
Sample reel — 50 ft., 8mm **\$3** 100 ft., 16mm **\$5**  
Kodachrome — 50 ft., 8mm **\$8** 100 ft., 16mm **\$15**

Catalog mailed with each order.  
We ship C.O.D., plus postage.

**FINE ARTS FILM PRODUCTIONS (MP)**  
P. O. Box 2084 San Antonio 6, Texas

caught him yet. His pictures are checked and re-checked for authenticity, his collection no mere file but an authoritative museum. Periodically, he edits and weeds, consigning many to the wastebasket, more to microfilm. Hardly a day passes that does not see the addition of a dozen or so new items. Some, of course, are received in the mail from antiquarians who want to sell or donate to the collection. But Bettmann has a professional photographer who travels throughout the United States, and two free-lance photographers traveling Western Europe just as Bettmann himself did 13 years ago.

He does not feel, however, that his camera must always cling to its sober purpose. He likes to fiddle with composites and thinks that young cameramen who enter his field might get a kick out of superimposing incongruous modernities onto ancient scenes. A student who once came to him for advice had a wonderful time with his family photo album. This was a plush-bound volume that covered four generations of his rather illustrious forebears, and featured a full-page picture of great-grandpa, the straight-laced and humorless founder of the family fortune. By the time the Bettmann inspired student got through with him, however, great-grandpa had an Atlantic City bathing beauty perched upon his unyielding knee!





# LENS TEST

(Continued from page 86)

Actually, it will be possible for you to calculate the exact physical resolving power of a lens, but for all practical purposes this is of little interest to the average photographer, since the physical resolving power cannot be translated into equal photographic resolving power.\*

The variance in the resolving power of lenses, however (even those of the same type and focal length), is wide enough to make a noticeable difference in the sharpness of enlargements and these differences you can ferret out quickly with this micro-scope test.

Also, you'll be surprised at the differences in resolving power at different apertures. Almost all lenses are sharpest in the middle apertures, with the diaphragm stopped down halfway between wide open and the smallest stop. From the point of maximum sharpness, they fall off in resolving power much faster as the lens is stopped down than when it is opened wider.

For purposes of comparison, it is best to check the lenses first at their widest apertures. Best quality lenses hold their sharpness wide open as well as at medium apertures, while others not as well corrected will fall off noticeably as the diaphragm is opened.

With the best of lenses, even of short focal length, you will be able to see each of the hundredth-inch markings of the scale distinctly at twenty feet and with the lens wide open. For all practical purposes, such extreme quality is not necessary, and your best method in checking a doubtful lens will be to compare it with

\* **Resolving Power**—For photographic work the term resolving power has come to mean the separation that must exist between the images of two equal lines before the two images can be distinguished on film. It is the ability of either a lens, or a film to separate closely spaced details in the object photographed. Inasmuch as the film in use greatly affects the ultimate resolving power, one can not be too hypercritical when testing the lens.—Ed.

## EXCLUSIVE FINE GRAIN

**35MM Kodak, Leica Argus, Perflex, etc.**

**"STANDARD"** 20 ex. 30 ex.  
3 1/2 x 4 1/2 glossy... \$1.10 \$1.50  
**"SUPER"** 3 1/2 x 4 1/2 matte... 1.50 2.25  
**"SPECIAL S"** 3 1/2 x 5 glossy... 1.50 2.25  
**"SPECIAL W"** 3 1/2 x 5 matte... 1.75 2.75  
Photo cell controlled Positives and Contact Strips

### 35MM MERCURY

**"STAR"** 35 ex. 65 ex.  
2 1/4 x 3 1/4 glossy... \$1.50 \$2.65  
**"POPULAR"** 3 1/4 x 4 1/2 glossy... 2.25 3.85  
**"SUPER"** 3 1/4 x 4 1/2 matte... 2.25 3.85  
**"SPECIAL S"** 3 1/2 x 5 glossy... 2.25 3.85

Mail your films with confidence or write for complete price list, mailing bag and order form.

**AMATEUR PHOTOGRAPHIC SERVICES, INC.**  
126 W. 46th ST. NEW YORK 19, N. Y.—Dept. M

### ROLL FILMS

8 ex. 120 116-4x6 **60c**  
12 ex. 127 120-4x4 **95c**  
16 ex. 127, 120 116, 3 1/4 x 4 1/2  
Many other services incl. Santeam

### MORAN COLOR PRINTS

Custom processed on the new improved PRINTON from any Kodak or Ansco transparency.  
2 1/4 x 3 1/4 ..... \$ .50  
3 1/4 x 4 1/2 ..... .85  
4x5 ..... 1.00  
5x7 ..... 2.00  
8x10 ..... 3.00  
Color film dev. 1.00

## FOTO JEANNIE

The Photogenic Mannequin

Practice with FotoJeannie... perfect your posing and lighting techniques without tiring a live model. Beautiful natural coloring—perfectly molded features. As shown, \$5.95... with Lifelike Eyelashes, \$7.45.

Ask for Catalog M6 Copr. 1948

### NEMCO SALES

25 N. Franklin St. Chicago 6, Ill.

**Make Every Shot Count!**

**35 MM Film Developed \$25**

**36 Enlargements \$1**

20 exp. 75c • 16 exp. Split 80c  
Oversize Reprints 4c

All miniature and split size rolls finished in our famous 2 1/4 x 4 1/2 Beauty Prints—deckled, embossed margin and EMBOSSED DATE.

Don't take a chance! Thirty years of dependable, painstaking service, and the millions of fine prints we have produced for camera fans, have caused thousands to place complete confidence in our ability to produce the kind of pictures they want. Have the assurance of pride and satisfaction with your pictures—send roll and money to us or write for FREE mailers, samples and complete Price List.

**Artistic Contact Finishing.** 8 exp. rolls complete set of deckled edge, embossed, wide-margin prints. Credits for failures. FREE Enlargement Coupon with each roll.  
**MAIL-BAG FILM SERVICE**  
Dept. 8 • Box 5440A • Chicago 80

**30c**

**20 READY MADE 2x2 SLIDES \$1**

WHERE ELSE can you get READY MADE SLIDES at 5c EACH? Full double 35mm size, 30mm and 35mm projector or viewer. SPECIAL OFFER—UNUSUAL 40 for \$25. ALL DIFFERENT. Other sets 25 up. 3 Day QUICK-FIX Slide Mounts 50c. ILLUSTRATED CATALOG sent with ORDER.

**SLIDE SUPPLY SERVICE** 311 & 313 ARCADE CANTON, N.Y.

## WAR SURPLUS BARGAINS Government's 7X 50 Binoculars



Assemble Them Yourself! Complete Optical Complete Metal Parts! Save More Than 1/2 Regular Cost!

**METAL PARTS**—Set includes all Metal parts—completely finished—for assembly of 7x50 Binoculars. No machining required. Bodies factory blinged and covered. Sturdy Binocular Carrying Case is optional with each set of Metal Parts.

Stock #242-M.....\$39.40  
Postpaid, plus \$4.00 for Case.....Total \$44.20

**OPTICS**—Set includes all Lenses and Prisms you need for assembling 7x50 Binoculars. These are in excellent condition—perfect or near-perfect—and have new low reflection coating.

Stock #5102-M  
\$29.00 Postpaid

**NOTICE!** If you buy both Binocular Optics and Binocular Metal Parts, add 20% Federal Tax.

Also optics and metal parts for Army's 6x30 Binoculars. Write for "6x30 Binoculars Information M".

**8 POWER GALILEAN TELESCOPE**—(Commercial Surplus) 25mm dia. Achromatic Objective Lens. Sturdily constructed of Aluminum. 7" long, extends to 9". Complete with carrying case.

Stock #241-M.....\$39.40 Postpaid

**CONDENSING LENSES**—Seconds, but suitable for Enlargers and Spotlights.

Stock #1081-M—6 1/2" dia., 9" F.L.....\$3.50 Postpaid

Stock #1080-M—5" dia., 7" F.L.....\$1.50 Postpaid

We Have a Limited Quantity of Condensing lenses—seconds—ranging from 4 1/2" to 8 1/2" in dia. with various focal lengths.

Send for Free Bulletin titled "MISCELLANEOUS CONDENSING LENSES".

**35 MM. KODACHROME PROJECTING LENS SET**—Consists of 2 Achromatic Lenses for projecting, plus 2 Condensing Lenses and piece of Heat Absorbing Glass with directions.

Stock #4029-M.....\$3.10 Postpaid

**BUBBLE SEXTANT**—BRAND NEW and with Automatic Electric Averaging Device and Illuminated Averaging Disc for nighttime use. Govt. cost \$217. Though brand new we have rechecked Bubble and Collimation and GUARANTEE perfect working order.

Stock #232-M.....\$22.50 Postpaid

We Have Literally Millions of WAR SURPLUS LENSES AND PRISMS FOR SALE AT BARGAIN PRICES. Write for Catalog

"W"—SENT FREE

Order by Stock No. Satisfaction Guaranteed

**EDMUND SALVAGE CO.**

P. O. AUDUBON, NEW JERSEY

### 35 MM FILM

NOT war surplus

Guaranteed Fresh Stock—Reload Your Own

ANSKO—EASTMAN—DUPONT

25 ft. ....\$1.00

100 ft. ....\$3.50

POSTPAID

RELOADED CARTRIDGES 3 FOR \$1.25

36 Exp.—We Supply Cartridges  
Calif. Buyers Include Sales Tax

PACIFIC COAST FILM COMPANY

1512 No. Sierra Bonita, Hollywood 46, Calif.

### EKTACHROME EXPERT FILM ANSCO COLOR PROCESSING

4 x 5, 3 1/4 x 4 1/4, 9 x 12 cm.....\$2.25

2 1/2 x 3 1/4, 2 1/2 x 3 1/2, 6.5 x 9 cm......20

120, 620, B2, PB20, 35 mm 20 Exp. Rolls.... 1.00

High Quality Color Prints—Send For Prices.

GOSHEN COLOR LABORATORIES

Box 564

Goshen, Indiana

### Send 3c stamp for NEW FREE 1948 DELUXE CATALOG

A complete line of Photographic Equipment for the Amateur and Professional

BLOOM'S CAMERA CENTER

Dept. M 1657 Main St. Springfield, Mass.

one which you know is capable of giving satisfactory negatives.

Fine resolving power seems to be an inherent quality in the best of lenses, and you can spot it instantly with this test. With a truly excellent lens, the focusing operation with the microscope is easy, and the lines of the scale jump into sharp relief quickly. With lenses not so good, it seems that you have trouble getting the image into focus—and try as you will, the sharp focus will continue to be elusive.

Scratches, solarization, or even dust on the surfaces seem to make no difference with a truly fine lens. Sometimes a dirty-looking, badly marred lens will cut those hundredth-inch lines as sharply as you could wish, while no amount of tinkering or polishing will make a soft lens improve the image which it casts at the first test.

#### Calculating Resolving Power

Should you wish to calculate the resolving power of the lens, make several tests until you find the greatest distance from the scale at which the lens will show definition of the hundredth-inch lines, then measure that distance in inches. Divide this distance by twice the focal length of the lens, in inches, and multiply the quotient by one hundred, which will give you the resolving power in lines per inch.

To reduce the resolving power to lines per millimeter, simply divide the resolving power in lines per inch by twenty-five since one inch equals almost exactly twenty-five millimeters.

The formula is:

$$\frac{\text{Lens-to-scale distance (in inches)} \times 100}{\text{Focal length of lens (in inches)} \times 2} = \frac{\text{Resolving power}}{\text{in lines per inch}}$$

To make full use of medium-speed fine grain film, a lens should have a resolving power of 1,500 lines per inch, or 60 lines per millimeter. A good Tessar will usually resolve 1750 lines per inch, or 70 per millimeter, and occasionally an extraordinary lens will be found which will resolve several thousand lines per inch.

Those rare lenses with superb resolving power and color correction won't come into their own, however, until the film

Also, you will find this critical testing of lenses very worthwhile if you shoot much color, because color film for best results demands the finest of lens performance.



"It's cheesecake! She's an actress and he's a newspaper photographer."

**Spiratone**  
FINE GRAIN  
LABORATORIES

# America's Most Sensational Amateur Photo Contest! WIN A FREE TRIP TO HOLLYWOOD\*

For Your Favorite

## DREAM GIRL

Picture



**BETTY HUTTON**  
co-starring in  
"Dream Girl"  
A Paramount  
Picture

**BETTY HUTTON**  
with her  
Bricklin 8

**FREE!** The General's  
New Photo-Equipment  
Buying Guide. Send  
for your copy now.

**NOTHING TO BUY—  
SOLVE OR WRITE!**  
It's Easy — It's Fun — It's a  
chance of a Lifetime!  
**TWO FULL WEEK TRIPS —  
ALL EXPENSES PAID**  
One trip as first prize in Still  
Class and one trip as first  
prize in Movie Class.

**PLUS . . .**  
**50 PERFEX 35MM CAMERAS**  
**50 PERFEX MAGAZINES**  
**MOVIE CAMERAS**  
and 50 other prizes totaling  
\$10,000 worth of Photo-  
Equipment.

**CONTEST OPEN TO EVERY-  
ONE**, regardless of age.  
**JUDGES** — Paramount ace  
photographers.  
Contest closes Aug. 31, 1948.  
Send now for rules and entry  
blanks. Don't delay — you  
may be the winner of The  
General's "Dream-Trip" to  
Hollywood. Send coupon  
below for rules and entry  
blanks.

**MAIL THIS COUPON**

The General Camera Co.  
2308 D.M. Devon Ave.  
Chicago 45, Ill.

I want to win a Free Trip to  
Hollywood. Rush me rules and  
entry blanks.

Name . . . . .  
Address . . . . .  
City . . . . . Zone . . . . . State . . . . .



## 35MM SPECIAL ALL FOR \$2.00

1 ROLL OF 36 EX.—35MM FILM DEVELOPED  
AND ENLARGED TO 3x4. YOUR CHOICE OF  
1 RELOAD. ALSO POSITIVE PRINTS MADE  
FROM YOUR ROLL. 20 EX. ROLL. . . . \$1.50

RELOADS—YOUR CHOICE—3 FOR. . . \$1.00  
27½ FEET PLUS X—SUPREME. . . . . 1.00  
100 FEET SUPREME—PLUS X. . . . . 3.50  
27½ FEET SUPER XX—PAN X. . . . . 1.50  
100 FEET SUPER XX—PAN X. . . . . 5.00

### ALLEN'S PHOTO FINISHING

7408 Sunset Blvd.

Hollywood 46, Calif.

## HOLLYWOOD

### Model of the Month

A beautiful Hollywood model is selected  
each month . . . and portrayed in 5  
glamorous color poses. Send for "Miss  
June" Now!

Set of 5 Color Slides . . . . . \$2.00  
Set of 5 Fine Grain Negatives. . . . 1.00

### MODEL OF THE MONTH

Dept. No. 24

7424 Sunset Blvd., Hollywood 46, Calif.



## NEW! . . . THREE DIMENSIONAL COLOR REPRODUCTION

Duplicate color transparencies from 35mm originals  
for three-dimensional color effect.

### ALEX GRANT

Box 29, Detroit 12, Mich.

**DUPLICATION • PROCESSING • REPRODUCTION  
OF COLOR TRANSPARENCIES**

## CAMERA CLUB NEWS AND IDEAS

AnSCO announces that their program, "Filters and Their Use in Photography," available on loan to Camera Clubs, has been revised and enlarged, especially by the inclusion and addition of numerous slides in color, more clearly illustrating the points under consideration. This revision includes an illustration of a sky and cloud-filled landscape, shown first in color (AnSCO Color original transparencies) and then the same scene is shown in black and white, first with no filters, and then through light yellow, medium yellow, dark yellow and red filters respectively.

A closing summary has been added which strikingly illustrates the filter action under study. In this series, four color objects—red, yellow, green and blue—are shown in color and, in the same slide, the monochromatic rendition in black and white when photographed with no filter, then through a yellow, a green, a red and a blue filter respectively. This provides a very unusual study of filter action in black and white, in direct comparison to the original colors of the objects themselves.

Clubs will find this program a very clear, concise and instructive presentation of the subject, "Filters and Their Use in Photography."

Camera Clubs wishing to have this program should make early reservations. Several alternate dates would be appreciated, in order that schedules may be arranged to provide for all requests.

Write Camera Club Department, AnSCO, Binghamton, New York.

DIXIE CAMERA CLUB of Atlanta, barely 2 years of age, is making a strong bid as one of the leading clubs of the Southland. Let editor Ed Gambrell, writing in the *Southern Exposure*, speak for the club:

"This is the biggest edition (16 pages) of *Southern Exposure* that has ever gone to press, and, as any introduction would appropriately comment, it is fittingly so. For, despite Russian aggression, the southern admission that the Yankees have been running the Democratic party all along and there isn't much they can do about it, despite the shrouds that our beloved women are now draping around themselves and the high prices and scarcity of things photographic, Atlanta is well into its biggest photographic year and the DIXIE CAMERA CLUB is well into its biggest year, though it be but its second.

"In this issue are nine pages of the club's better photographs—the Prints-of-the-Year for 1947 and the winning prints from our January and February salons—and there are pictures on nearly every other page.

"These pictures represent the work of 13 of our members and, but for the season, the limited number of prints we could afford to reproduce and the vagaries of the judges, we could have had many more of comparable quality.

"The club is not only turning out more and better prints, but it is making preparations for its first national salon this summer.

"We are proud of our accomplishments—a big, friendly, democratic membership, a large number of print makers, a high quality of prints, and a national salon—all in less than two years time."

**NEW YORK COLOR SLIDE CLUB INC.** sends along an invitation for color shooters to visit the club. Meetings are held on the first and third Friday of each month in the auditorium of the Central High School for Needle Trades, 24th Street between 7th and 8th Avenues, at 8 P.M. Further information may be obtained from Norman Rothschild, 87 Bay 31st St., Brooklyn 14, N. Y.

Ed Wolff & Associates, 428 Taylor Building, Rochester 4, New York, advertising agency for Wollensak, is seeking black and white, 8 x 10 prints and color transparencies, 3 1/4 x 4 1/4 or larger made with Wollensak lenses and suitable for use in the lens manufacturer's advertising. The agency pointed out that pictures selected for possible use as future advertising material will be purchased at a good price. Interested participants, it was stated, should write the agency for details before submitting pictures.

Frin Vanden reports in the **CHICAGO COLOR CAMERA CLUB** *Projector* something we didn't know about our contributing editor Karl Baumgaertel of San Francisco. Seems that after many years and many thousands of color slides, including many accepted for exhibition and reproduction, Karl has finally reached the pinnacle of photographic success. For the very first time, one of his slides, recently returned from the processor, carried 'round its circumference, the coveted yellow band expressing the manufacturer's opinion that it would make a good print!

At the last meeting of the **DETROIT CAMERA CLUB**, with headquarters in the Detroit Institute of Arts, the following were elected to serve as officers for 1948:

|                |                |
|----------------|----------------|
| Jeane Elwell   | President      |
| Walter Musial  | Vice-President |
| Bertram Abrams | Secretary      |
| Clark Walborn  | Treasurer      |

Harvey Croze, William Bond and Bert Abrams of the Entertainment Committee are making plans for a gala affair to celebrate the **DETROIT CAMERA CLUB'S** 50th Anniversary.

## MELROSE ZIPPER CHANGING BAGS

The protection you have been looking for. No need to "black-out" your kitchen—nor walk miles to your darkroom when stranded. A superior changing bag made of the finest light-tight material with **DOUBLE PROTECTION**. Holders are slipped into the end of the bag,

which is then closed with the zipper fastener. Your hands slip through the sleeves which have rubber wrist bands to keep out the light.



|       |         |
|-------|---------|
| 17x21 | \$ 5.25 |
| 29x34 | 8.50    |
| 34x34 | 10.50   |

postpaid

Complete selection of still and movie cameras and projectors of the leading manufacturers. Eastman Kodak—Ansco—Bell & Howell—Zeiss—Leitz—Argus—Ampro—Victor—Revere—Micro 16—and others. Complete stock of photo papers, film, flashbulbs, etc.

## COLUMBUS

PHOTO SUPPLY

1949 B'WAY, N. Y. C. 23, N. Y.

## 25 PHOTO STUDIES

BY PROFESSIONAL

*Models Beautiful* NOW IN COLOR



No artist should be without these educational aids in bright life color! On 35MM Film Strip, complete with ready mounts. Order now. New series released regularly. **\$10 Value For Only \$2.95**

Magnifying Viewer for Perfect Detail. Holds Either Film Strip or Slides. . . . . \$1.50 (When ordered with above film)

25 Houston Plastic ready mounts, permanent, will not bend. Specify single or double 35MM frame . . . . . \$1.00

**BENEFIT FILM CORP., Dept. 16**  
3807 Benefit St. Baltimore 24, Md.

## 35MM FANS!!

Let us solve your film problem. . . A 36 exp. roll fine grain developed and enlarged to 3 1/4 x 4 1/2 PLUS a fresh reload of guaranteed film in your favorite speed for \$1.50. **FAST SERVICE.**

**B-K PHOTO LAB**

2534 Ashland Ave. Baltimore 5, Md.

## SCENIC HOLLYWOOD

Famous highspots in their full natural color. See the famous places you have often heard about or seen. Grauman's Chinese, The Hollywood Bowl, Earl Carroll's, etc. Ten 2x2 Slides—\$2.50

**SPECIAL!!**—Beautiful plastic case, viewer and the above slides for the amazing low price of \$3.50.

**STEDCO PHOTO ASSOCIATES**

P. O. Box 1811, W.L.B. Sta., Los Angeles 38, Calif.



**STOP THIS** 

WITH  
*Raycote*  
**LENS COATING**



**GET THIS** 

**Dependable, guaranteed service—improved, heatless, hard coating.**

Write for name of nearest dealer.

**RAY CAMPBELL & CO.**  
DEPT. A—1822 HYPERION AVE.  
LOS ANGELES 27, CALIFORNIA

**COLOR PRICES SLASHED!**

COLOR PRINTS MADE FROM ANSCO, KODACHROME AND EKTACHROME TRANSPARENCIES. ALL COLOR PRINTS ARE EXPERTLY PROCESSED BY ELECTRONIC CONTROLS USING THE NEW PRINTEM.

**COLOR PRINTS—2 1/4 x 3 1/4—\$ .35— 4 x 5—\$ .75**  
5 x 7—\$1.50 — 8 x 10—\$2.50  
MINIMUM ORDER ON COLOR PRINTS \$1.50  
SEND CHECK OR MONEY ORDER—NO C.O.D.  
Active color—Ektachrome—\$1.00 PER ROLL

**72 HRS. SERVICE—CASH—**

**MERIT Color LABS**  
P.O. BOX 395 TIMES SQ. STA. N.Y. 16, N.Y.

**Punch** YOUR OWN HOLES  
for ALBUM BINDINGS

Makes 9/32 x 3/32" holes any distance apart in film, paper, leather, etc. for plastic or other flat binding. Tool steel cutters. Beautifully nicked.



PRICE **\$5.50**

SENT POST PAID If not at your dealer

Guaranteed by one of America's oldest punch makers.

**HOGGSON & PETTIS, NEW HAVEN 7, CONN.**

**FREE Photo Catalog**

Fresh off the press— from America's photographic department stores! Camera, Projectors, Film, Darkroom needs, etc. . . . thousands of white boys.

**128 PAGE BARGAIN BULLETIN**

**FOTOSHOP** Dept. 12-1418 EAST 42nd ST. N.Y.



Noted newspaper cameraman Ray Platnick (of *PM*) will place his camera on the shelf each week for 15 minutes and conduct his own radio show—*Camera Column of the Air*, directed to the problems of the amateur photographer.

Radio station WHLI in Hempstead, Long Island will feature the program each Saturday morning from 8:45 until 9.

Guest speakers from both the professional and amateur fields will chat informally with Ray from his mythical photo-lab darkroom. The first broadcast was aired April 3rd.

Ray has been covering news events on Long Island and Metropolitan New York for the past 15 years. During his 3 years in the U. S. Coast Guard as a Chief Photographer, he served overseas in Greenland and participated in three bloody invasions of the Gilbert and Marshall Atolls in the Pacific. Fleet Admiral William Leahy presented Ray with a Naval Citation for his photographic war coverage.

Ray springs from a long line of active press photographers. His father, sister and brothers all are shooting pictures for NY Newspapers and photo-syndicates of spot-news happenings on Long Island.

FOTO ALPINE C. C. members stared bug-eyed recently when they were treated to a set of unusual slides made by member Bob Snively of Seattle. Many of the pictures were made in an Exakta with 8 1/4-, 30- and 60-inch lenses and the amazing results with objectives of such astronomical focal length can well be imagined. One of the most complete series of slides taken on an ascent of Mt. Ranier was also shown by Snively.



Officers who will guide the destinies of the Goats this year were recently elected and are: George Kinkade, Auburn, chairman; John Mardesich, Seattle, vice-chairman; Jon Rasmusson, Seattle, secretary-treasurer. Other members, board of directors: Fred Bannister, Jr., Enumclaw; John Lincoln, Ray Brandes, John Karner, all of Seattle.

—WCCC Bulletin.

This is the sort of thing that could only happen to Weege. The other day he got someone else's suit from the cleaners and after trying it on and finding it wouldn't fit, took it back and demanded his own. The proprietor was apologetic but said he couldn't possibly find a "blue suit size about 44" on a moment's notice. Maybe Weege could come back after five when he'd have a chance to look thoroughly?

"It'll take only three minutes," said Weege. "Just look for the only suit in the shop with zippers on all the pockets."

It took two minutes. But as we said, this sort of thing only happens to Weege.

—American Society of Magazine Photographers Inc. "Newsletter."

Four patents on cameras for making instantaneous pictures were issued to Edw. Land, President of Polaroid Corporation, on February 10th last. These cameras turn out a finished picture in one minute after the shutter is snapped.

Described in the patents are several general forms of cameras, some for roll film, others for packs. All produce a positive print in permanent form ready for use. They contain no tanks; the picture is taken from the camera dry and requires no further processing.

First announced at a meeting of the Optical Society of America in February, 1947, no date has yet been set for their commercial introduction. Patent applications showed cameras of the general size and shape of conventional folding cameras. An account of this "one minute process" appeared in MINICAM, May, 1947.

"Sheer necromancy, that's what it is," commented Conrad Emanuelson on a recent picture-hunting expedition. Reports are that Connie recently was seeking a good railroad shot with Len Bennett and Ray Boedigheimer and was preparing to make a shot of a likely subject. As the unsuspecting Connie started to view his subject through the ground glass he fell victim to a practical joker in a nearby switch tower. Just as our president prepared to make his shot, the switchman applied a mechanical control which started the tracks moving back and forth. Imagine Connie's consternation as he viewed the tracks jogging back and forth with no one around. What a way that railroadman picks to toy with a serious photographer's effort. He should have a train run right through his roundhouse. . . .

—Green Briar Honorable Mention.

## NEW LIGHTWEIGHT ALBERT ROYAL TRIPODS

Complete with new model Royal Pan and Tilt Heads.

- Rigid all metal design.
- Quick positive leg lock.
- Reversible tip—rubber or pointed steel.
- Patented ball and socket joint construction.

|  |         |
|--|---------|
| 3-section Lightweight Royal—67" extended, 28 3/4" collapsed. | \$22.71 |
| 2-section Lightweight Royal—65" extended, 28 3/4" collapsed. | 17.83   |
| 2-section Standard Royal—66" ex., 29 3/4" collapsed          | 17.83   |
| Case For All Models  | 2.50    |

WRITE FOR FREE BARGAIN BOOK

**CENTRAL CAMERA CO.**  
250 S. WABASH AVE. CHICAGO 4 ILL.

PLEASURE AND  
PROFIT IN



# Photography

IMPROVE YOUR  
SKILL — STUDY  
AT HOME

Whether you wish to make a career of photography or want to gain additional skill as an amateur, the American School of Photography offers practical basic training, which requires only spare time study.

With proper aptitude and application, this course should provide you with a fundamental background which may open the door to valuable professional experience . . . or add fascination and zest to your hobby.

**OLD ESTABLISHED SCHOOL.** Backed by years of experience, our training covers every phase of Modern Photography through spare time study at home. Basic photographic principles are taught by inspiring "learn-by-doing" method, step-by-step, under the supervision of a qualified instructor.

**GET FREE BOOKLET!** Send coupon today for free booklet, "Opportunities in Modern Photography," and full particulars. No salesman will call.



**AMERICAN SCHOOL OF PHOTOGRAPHY**

1315 S. Michigan Avenue Dept. 194A  
Chicago 5, Illinois

**AMERICAN SCHOOL OF PHOTOGRAPHY**

1315 S. Michigan Ave., Dept. 194A, Chicago 5, Ill.  
Please send me without obligation your free booklet, "Opportunities in Modern Photography," and full particulars. No salesman will call.

NAME .....

ADDRESS .....

CITY..... ZONE..... STATE.....

# BRIGHT STAR



**ampe-volt  
balanced photoflash  
cells**

*preferred by  
professionals*

better buy Bright Star  
for better service



## Synchro-Sunlight

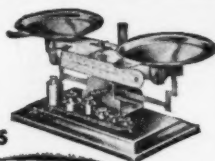
(Continued from page 56)

the ground or sand for a background. If it is desirable to keep the camera level, a building or other large surface can be used as a background, providing the subject is placed fairly close to it.

### How to Use Guide Numbers for Synchro-Sunlight

As we pointed out above, sunlight is not taken into consideration when a subject is strongly backlighted so that important

**Pelouze  
DARKROOM  
SCALE ALWAYS  
BEST. NOW!**



**BETTER THAN EVER!**

No delayed action...balances instantly! Amazing sensitivity is provided by the exclusive new Pelouze \*Sensitizer... Easy-reading dial shows both avoirdupois and metric weights. Capacity 1790 grains or 100 grammes.

Now You Can Buy the BEST for LESS!

**PELOUZE MFG. CO.**

1204 Chicago Avenue, Evanston, Illinois

## ELKAY BLOWERS

\*Double unit model for **\*\$18.50**  
ventilating one or two  
darkrooms. Changes 200 cu. ft. of air  
per minute. Heavy duty motor.

Single Unit Model, \$12.50

**Elkay Photo Products, Inc.**

287 Washington Street  
Newark 2, New Jersey

**BUY MORE SAVINGS BONDS**



VERONICA LAKE'S hair would not have had the proper texture without flash to brighten the shadows in this against-the-light picture.

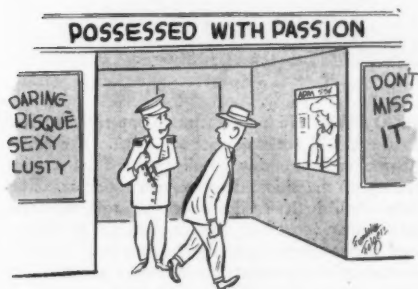
features facing the camera are buried in shadow. In this case, exposure is made according to the flash guide number that would apply if the subject were being photographed by flash alone. The procedure in making other synchro-sunlight shots in which the sun does contribute subject-illumination is as follows:

1. Measure the sunlight reflected from the subject to determine what the correct exposure would be *without* flash or fill-in. Let's suppose that we find the correct exposure to be 1/100th. second at F:22.

2. Flashguide numbers are printed on the cartons of the G.E. or Wabash bulbs you are using. This is the flash guide that would be used if exposure were to be made by flash alone. Let us suppose that the flash guide number for the bulb you are using is 220.

3. Divide the flash guide number by the F stop indicated in step 1 above. In our theoretical example, this would be 220 divided by F:22 — which equals 10. The figure 10, then, represents the number of feet away from the subject at which the flash will equal that of sunlight for balance in exposure. This distance (10 feet) will result in a flash of light that will balance the sunlight and destroy deep shadows. As a matter of actual practice, however, I recommend that the bulb be fired at 20% greater distance — or 12 feet.

This permits the sunlight slightly to overbalance the flash, and usually produces a more natural-looking picture with better modeling than is otherwise obtained.



"Care to see the stills?"

## COLOR PRINTS

Order by mail from

THE NATIONAL CAPITAL

## DUB'L HARDENED

for long life

"Finished Like Fine Porcelain"



FROM  
KODACHROME  
EKTACHROME  
or ANSCO  
COLOR FILM

**LIST OF PRICES**  
2 1/4 x 2 1/4 or 2 1/4 x 3 1/4  
50¢—Ten for \$4.00  
3 1/4 x 4 1/2 70¢  
(Send 35 mm. in Ready-mounts; remove glass)

FROM 35 mm. ROLL OR  
SHEET FILM  
(In Attractive Folders)  
3 x 4 70¢ each  
3 1/4 x 4 1/2 80¢ each  
4 x 5 \$1.00 each  
5 x 7 1.95 each  
8 x 10 3.50 each  
Minimum Order \$1.00  
Normal 3-Day Service—  
We Pay Return Postage  
Please Send Payment with Order

**CHINACOLOR**  
"Finished Like Fine Porcelain"  
NATIONAL CAPITAL  
PROCESSING LABORATORIES  
Box B-4203 Dept. 86  
301 CEDAR STREET, N. W.  
WASHINGTON 12, D. C.  
\* Trade Mark

LIKE THE FIRE-GLAZED CERAMICS of Ancient China . . . so changeless in beauty . . . so porcelain-smooth, every Chinacolor Print reflects the pride of the artisan's work.

## INSTITUTE OF DESIGN

Offers a 4-year training leading to Bachelor of Arts in

## PHOTOGRAPHY

Emphasis on Personal Development  
Still and Motion Picture, Illustrative,  
Portraiture, Experimental, Documentary,  
Color, Courses in Allied Fields of Visual Arts.

Catalog Available

632 North Dearborn

Chicago 10, Ill.

## Frank Barbeau will sell

Super Ikonta B \$225.00 With coated lens \$250.00  
Zeiss 2 1/4 x 3 1/4 press camera with Graflex magazine back and coated F3.5 Zeiss Tessar—coupled Hugo Meyer range finder \$200.00

FRANK BARBEAU

33 E. Bridge

Oswego, N. Y.

**IT'S FUN TO FILTER**

With  Without 

**Kent FILTER KITS**



Optical glass precision filters. Kent MOVIE & 35mm FILTER KITS (2 models) for either Kodachrome or Black-and-White, with 3 filters, sunshade, genuine leather case . . . . . ea. kit list **\$3.95**  
 Deluxe Kit (6 filters) for B & W and Kod. . . . . list **\$5.95**  
 Also available: Kent SERIES V and VI FILTER KITS for B & W and Kod. . . . . list **\$3.95 to \$9.95**

**SEE YOUR DEALER**

**AREL** 4916 Shaw, St. Louis 10, Mo.  
 235 Mayran, Pittsburgh 13, Pa.  
 225 Fifth Ave., New York, N. Y.

SO PACIFIC, MOROTAI, LEYTE...

**TRUE COLOR** 2x2 SLIDES  
*Art & Travel*  
 50¢ ea. 5 for \$2.00  
 PARCO SLIDE CO. THOMAS RIVER N.J.

MANILA, MEXICO, NATIONAL PARKS

**EXCITING FILMS**



**Thrill YOUR AUDIENCES**  
 ...with unusual movies.

Send only one dollar for "GLAMOROUS EXCITING STARS," featuring Hollywood's most Beautiful Daughters in scene after scene of delightful loveliness. Mail this coupon now!

Make your shows **EXCITING!**

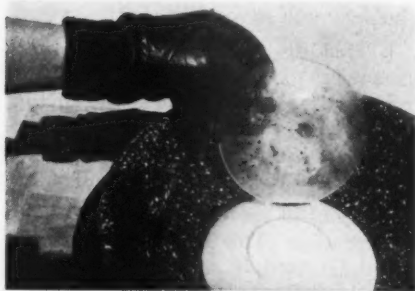
EXCITING FILMS, Dept. M  
 1071 El Centro, Hollywood, Calif.

Please rush me the thrilling Movie, "GLAMOROUS EXCITING STARS," with four color brochure listing all EXCITING FILMS, for which I enclose only \$1.00.

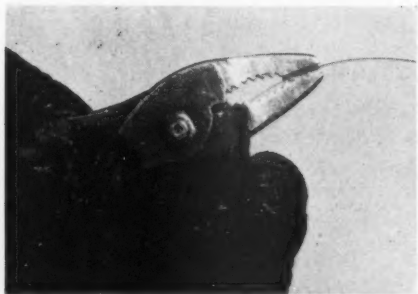
Print Your Name.....  
 Address.....  
 City..... State.....  
 Check Here ☐ 8MM ☐ 16MM ☐ Sound ☐

## Plastic Safety Shield for Midget Flash Reflectors

(Continued from page 60)



TO BEND TABS heat only the area of the blank immediately surrounding the point at which the bend will occur. The tab may be bent with pliers while holding it under the hot water, or it may be removed from the water and bent quickly while the plastic is still pliable. Do not try to force the bend. If the plastic resists bending, do not continue bending until you have re-heated it.



BEND THE TABS approximately at right angles to the shield surface near the edge. The exact degree of bend may be determined by a trial fitting of the shield to the flash reflector. The tabs should fit easily over the reflector rim without any forcing. Shields are light in weight and a very slight gripping action is all that is necessary to prevent them from accidentally falling loose even if the flash unit is given a

vigorous shaking. If the tabs are bent at too sharp an angle, so that it is necessary to force the shield onto the reflector, the repeated flexing at the bend will cause them to break off.

Tying the rubber retaining band between the two drilled tabs completes the shield for use, unless it is desired to dye the plastic blue so that it will serve as a correcting filter for white flash lamps when used with daylight color film.



A GLASS PIE PLATE is a good container for the blue cold dip plastic dye with which the reflector shields may be colored. The dye will wash off the glassware quite readily when you are through with it. Since the density of the color obtained increases with the length of time that the plastic is submerged in the dye, it is a good idea to determine the correct dyeing time by first dipping scraps of plastic in much the same manner that test strips are made when printing photographs. The test strip may be submerged progressively deeper in the solution, say at one minute intervals, and the strip of the correct density selected by comparison with one of the blue filters used for correcting the light of white flash lamps for use with daylight color film. If such a filter is not available, a scrap of the blue lacquer coating from one of the "B" flash lamps will do as a color guide. The plastic should be rinsed in cold water as soon as it is removed from the dye bath. If in doubt as to the correctness of the blue density, make the first shield a bit on the light side, and test it by using it to filter the flash of a white lamp which is the sole source of illumination for a photograph on daylight color film. When making test exposures it is best to work where the walls or other reflecting surfaces are of a neutral tone. Gray or white would be ideal. If the test transparency is too "warm" or reddish in color this may be corrected by re-dipping the shield in the dye until sufficient blue has been added. For my own working conditions I have found that a total dyeing time of eight minutes produces a satisfactory flash lamp filter shield.

## FOCAL PRESS

Books on Photography

### FIRST AMERICAN EDITIONS

of these famous Focal Press books

**NOW AVAILABLE**

at all Photo Dealers and Bookstores

#### DEVELOPING, by C. I. Jacobson

Presents practical advice on the negative technique and the basic facts of its theoretical background. Includes over 200 formulas and tables. Thoroughly explains the process of development—solution preparation, steps followed, apparatus used, desensitizing, fixing, washing and drying.

320 pages, 150 illus. ....\$3.50

#### ENLARGING, by C. I. Jacobson

A reliable manual for the professional and amateur photographer. Contains the latest material on technical development and discusses the enlarging process step by step. Fully covers the negative, printing papers, the enlarger, and the developing of prints.

316 pages, 136 illus. ....\$3.50

#### LIGHTING FOR PHOTOGRAPHY,

by Walter Nurnberg

Deals with the techniques of artificial lighting and the qualities of different light sources. Sketches the principles of their practical use and gives countless suggestions as to their individual application. Explains where to place lamps for portraits, groups, figure studies, still life, glass, metal and fabrics.

176 pages, 297 illus. ....\$4.00

#### PHOTOGRAPHING PEOPLE,

by Hugo van Wadenoyen

Explains aims, means, applications of new methods. Shows how the solemn camera portrait has given way to the candid, unposed pictures of people's faces. Includes full discussions of the questions of likeness, cameras, lighting and flashbulb technique.

168 pages, 189 illus. ....\$4.00



**FOCAL PRESS Inc.**

381 Fourth Ave., New York 16, N.Y.

In association with

**PITMAN Publishing Corporation**

2 W. 45th St., New York 19, N.Y.

*Immediate Enrollment!*

at the

**Germain**

**SCHOOL OF PHOTOGRAPHY**

Study Professional Photography

Day and Evening Courses

Approved for Veterans

Write now for catalog 85F.

225 BROADWAY

NEW YORK 7, N. Y.



You'll Always Find Low Prices  
at ABE COHEN'S  
EXCHANGE

**CLOSEOUT!**



### KIMAC MASTER VIEWER

Cutaway Model

**\$12.50** Reg. \$26

View your 35mm and 2x2 transparencies as well as any 2 1/4 x 2 1/4 portion of film up to 5" wide. Gives undistorted three dimensional image in any light.



### TRAVELER Box Camera

**\$4.95** Reg. \$6.95

Handsome, all-metal construction. Picture size 2 1/4 x 3 1/4. Ideal for the beginner because of ease of operation.

YOU'LL ALWAYS FIND TOP TRADE VALUE or cash payments for your used equipment. Ship it to us for estimate. If not satisfactory we will return at our expense.

"THE HOUSE OF PHOTOGRAPHIC VALUES"

**ABE COHEN'S EXCHANGE, INC.**

142 FULTON STREET, • NEW YORK 7, N. Y.

**Ok FOR Quality**  
**25c**  
2 1/4 x 3 1/4 COLOR PRINTS

3x4 1/2—50c 5x7—\$1.00  
MADE FROM ANY SIZE COLOR FILM

No expensive mounts or advertising plus production improvements make it possible for us to offer color prints of good quality at a reasonable price. Send your next order to us and discover for yourself that a good color print need not be expensive.

Anso. Ektachrome Developing, Duplicating of Color Film Any Size. Develop and Print, 120-620 Color, \$3.00 Per Roll, 8-12 Exps. Minimum Order, \$2.00 Rapid, Careful Service

**Ok Photo**

P. O. BOX 1682, LOS ANGELES 36, CALIF.

## THE LAST WORD

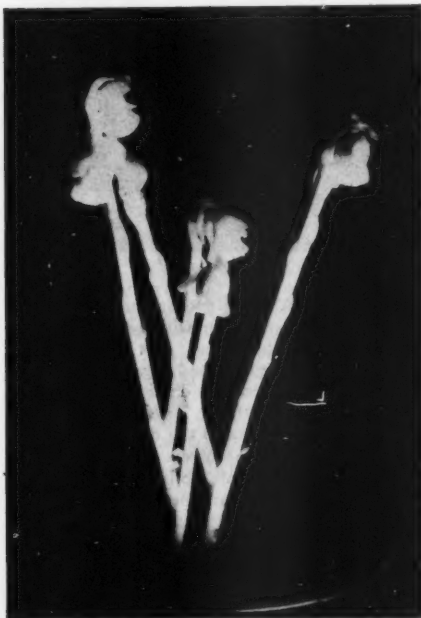
(Continued from page 10)

at the right exposure?

You can bet your best filter though, that the next time I get in those Penna. mountains it will be a lot different.

Baltimore, Md.

KARL A. FULTZ.



• Monotropas, as explained in the April MINICAM, are a pallid white because they have no green, food-making pigment. Sometimes called "Indian Pipes" or "Corpse Plants," they feed upon dead and decaying materials like mushrooms.—Ed.

Correction Dept.

Dear Sir:

I should like to take exception to author Philip H. Bailey's statement in "How to Shoot Action in Color" (April issue) that the lens aperture on a camera can be made one stop smaller for each flash bulb used.

In order to shoot one stop smaller from any given aperture, it is necessary to have twice the amount of light. Because two bulbs at the same position give twice the amount of light that only one gives, you can go one stop smaller. In order to use another stop smaller, however, it is necessary to double the amount of light again, i. e.: use four bulbs. To get



another stop, eight bulbs must be used and so on in that geometric ratio. The above assumes, of course, that all of the bulbs are at one position. If more than one bulb is used and the bulbs are at different positions—Jack Stevens' set up for the midget racer, for example—the exposure is based on the bulb that is closest to the subject and gives it the most illumination.

The above can be verified by any photographer who uses extension flash technique. This point was brought forth and emphasized at the Seventh Annual Short Course in News Photography at Kent State University (Kent, Ohio) recently by Joseph Costa, *New York Mirror*, Frank Scherschel, *Life*, Gordon Kuster, *Columbus Dispatch* and Don Mohler, General Electric (Nela Park).

P. O. Box 846, REES L. EVANS,  
Windham, Ohio *Free Lance Photographer.*

• An addition to Mr. Bailey's statement which would have made it both clear and correct somehow failed to get set in linotype and its omission was not detected until most of the issue had been printed. MINICAM is grateful to all the readers who wrote in about the geometric ratio existing between lens stops and the number of flash bulbs used.—Ed.

#### Pin-money Idea

Dear Editor:

I've got a way for making pin-money that has worked for me and would work just as well for other amateur photographers. Occasionally I take photos of new-born babies in the Maternity Department of a nearby hospital and sell prints to proud fathers. With almost every father a "sure sale" it is an easy way to earn pin-money for photo supplies when your cash runs low.

Baldwin, N. Y.

DIANA MARS

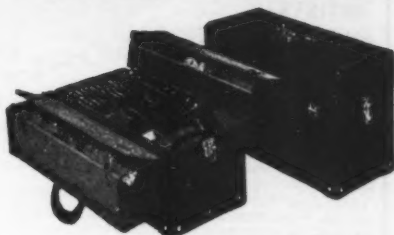
• In the future MINICAM will print original ideas on how to earn "Pin-money With Your Camera" from time to time. For each unillustrated idea accepted for the column, readers will be paid \$3. For each illustrated idea accepted, payment will be \$5. All ideas should be submitted to the "Pin Money Editor," Minicam, 22 East 12th Street, Cincinnati 10, Ohio. Only ideas accompanied by self-addressed stamped envelopes will be returned in the event that they are not used.—Ed.

#### Trashy Ads

Sirs:

I have been reading MINICAM since the first issue and have an almost complete file of the magazine. I have enjoyed it very much, but there is one feature I hate to see creep into the magazine, namely, trashy-looking ads for art slides. These make MINICAM look like a cheap pulp magazine, and make me hesitate to show it to my friends. Frankly, I think nude photography has a good, logical place in photographic endeavors, but I am afraid too much of the so-called art is of the French postcard type. If MINICAM and other photographic magazines do not clean house, sooner or later it will bring disrepute on a much misunder-

## 4x5 GRAPHIC CASE



**\$29.50**  
LIST

MODEL NO. 100

**Exclusive Perrin Design.** Holds 4 x 5 Graphic with flash attached, 12 or more holders, reflectors and many extras. Lid compartments for bulbs, meter, filters, etc. All plywood . . . velvetine lined . . . covered in brown, alligator or aerotweed fabricoid. Brass plated hardware. Also—Model No. 101 for 2 1/4 x 3 1/4

### J. B. PERRIN AND COMPANY

5606 SUNSET BLVD., HOLLYWOOD 28, CALIF.

## SCHOOL OF CAMERA REPAIR

"The Only School Of Its Kind"

Complete 10 week, 150 hour course in Camera Repair. Including Business Administration. Placement and Post-Graduate Consultation Service. Special Tools and Parts Available to Graduates. Special Rates to Veterans.

Classes Start

June 21st

Dec. 27th

Oct. 18th

Mar. 7th

the **Mini**



**PHOTOGRAPHIC  
ENGINEERING  
LABORATORY**

Dept. MP

1857 N. Western Ave., Hollywood 27, Calif.

### IS YOUR NAME ON YOUR EQUIPMENT?

Get **PERSONAL I-D-CALS**. Durable decals with name and address printed in 1/8" gold letters. Simply wet, slide on, let dry. Ideal for cameras, cases, holders, reels, cans, slides. Also matching gold **HOLDER NUMBERS** 1/8" high.

Send for **FREE SAMPLES** now.

**I-D-CAL COMPANY, 451C West Fairview Blvd.  
Inglewood, California**

## ARTISTS! PHOTOGRAPHERS! STUDENTS!

From the PRIVATE COLLECTIONS of Hollywood's famous photographers, we offer you skillful duplications of their FAVORITE NEGATIVES.

To the serious worker we bring one SALON STUDY each month; Idealizations of the world's most glamorous models.

We send as you request, semi or full-figure studies duplicated on fine grain film with technical skill that improves their printability.

The original negatives which we duplicate cost up to \$200.00 in time, model fees and setting.

We send you in addition to the negative: A PROOF as a print guide, a LIGHTING AND POSING ILLUSTRATION, plus data on FILM AND EXPOSURE used and INSTRUCTIONS in PRINTING and TONING. It is a LESSON in photography YOU WILL NEVER FORGET!

If you are not more than pleased, you may return the negative within ten days and we will refund the full price.

POSITIVELY the most beautiful NEGATIVES of the most beautiful models in the world, released for you to print and sell.

Print name and address. State size of negative wanted.

35mm, \$2.00—2 1/4 x 3 1/4, \$2.00—4x5, \$3.00—5x7, \$4.00

No C.O.D.'s

Address to: SALONCO, Studio 2, 6412 Hollywood Boulevard  
Hollywood 28, California

## For Accurate Close-Up Focus And Framing Without Measuring



### CAL-CAM FOCUS GUIDE

Works with all 35mm Bantam and most Reflex cameras when using a portrait lens for photographing flowers and other small objects.

The all metal Cal-Cam Focus Guide is easily attached, light weight, easy to carry and fully adjustable. If subject is framed it is in the picture! Eliminate all guesswork. Simple instructions included. PRICE.....

U. S. postage inc. if cash with order, C.O.D. charges added. Orders from Calif., add 2 1/4% sales tax.

**CAL-CAM**

1544 N. Grand Oaks Ave. Pasadena 7, Calif.

### "MOVIE FILM"

8MM. High Speed—Fine Grain Panchromatic ASA 40—25. Per 50 ft. **\$2.25**

INCLUDES 72 HOUR PROCESSING

16mm. 50 ft. Magazine \$3.50  
16mm. 100 ft. Roll \$5.95

HOLLYWOODLAND STUDIO

The World's Greatest Film Order House

9324 California Avenue South Gate, Calif.

stood branch of photography, and react to the detriment of pictorial photography in general.  
Brady, Texas. CECIL R. NELIN.

• Your views are well put, Mr. Nelin. We wish more readers who really have something worth saying would favor us with their opinions. That is what this column is for.—Ed.

Minicam in England

Sirs:

Judging by recent letters published, it seems that some of your British readers are not aware that subscriptions for many U.S. periodicals can be made through quite a number of firms in England. I, myself, pay 18 shillings for 12 months "MINICAM" and have just renewed my sub. The address of these firms appear in the British photographic magazines, so it is not quite fair to impose too much on U.S. generosity.

The books we have great difficulty in securing are the various annuals, but we usually manage to secure anything if we need it badly enough. I certainly enjoy your mag. and hope to receive it for many years to come.

London, Eng.

ERNEST W. J. FIELD.

Sirs:

In the March issue of MINICAM PHOTOGRAPHY, I notice that you refer to a request for old copies of your journal. You publish also, two letters received on this matter, in both of which American readers demonstrate great kindness in taking out a year's subscription for amateurs in England. Further, you invite other people to make similar subscriptions to help these "in foreign countries where the block on dollars excludes American magazines."

As far as Great Britain is concerned and in spite of the great strain on our dollar resources no such block exists. If anyone in this country wishes to receive MINICAM, all they have to do is to place a subscription with one of the larger news agents here and pay in sterling. It is also possible to obtain such back numbers as are available from the publishers in a similar way.

Possibly the English readers who wrote you were subscribers already, and wished merely to obtain old copies which might be of no use to their owners. At any rate, I think you should inform American readers that there is no need for them to make subscriptions for British camera fans. While very much appreciating their kindness and the spirit in which it is meant, the average British citizen has not yet reached the point where he is unwilling to pay his way when means exist for him to do so.

London, Eng.

J. G. GAULT.

Camera Manufacturer's Addresses

Sirs:

A Robot II Camera was illustrated in your December *Camera Survey*. Can you give me the address of the Burleigh Brooks Co.?

Alhambra, Calif.

ADRIAN WADDELL.

• Burleigh Brook's address is 120 W. 42nd St., New York 17. All other camera manufacturers' addresses appear on page 109 of the January MINICAM.—Ed.

## OUTDOOR COLOR PHOTOGRAPHY WITH THE CC14 FILTER

(Continued from page 50)

prevent the film's slight overindulgence in these colors and achieve a transparency with the light colors more nearly as our eyes see them.

### Warming Cool Scenes

We all know that the latitude of color film is extremely limited, compared with that of black and white films. Very often, outdoor scenes will tempt us where the foreground is illuminated only by light from the sky and, consequently, is excessively cool. The background of the scene is in full sunlight. Such scenes are often with us in the mountains, where one is likely to come across them at each turn of a road. What a contrast range! And how difficult to hold some semblance of detail in either! The real problem is how to keep foreground objects from being completely swamped by our cool colors. Here again, as in full sunlight, the filters will produce a warmer rendering of the objects in the shade, so that detail, such as plants and flowers, will photograph more nearly as we actually see them. In this connection, we should point out that contrast and color saturation is inherently lower in scenes or portions of scenes illuminated only by skylight. Here, the areas are hidden from the direct rays of the sun and the only light that we receive in the scene is that light which is reflected from the sky, plus some light which may be reflected from surrounding surfaces. Although Mother Nature has gone a long way towards helping us by creating this soft, diffused sunlight, we still would do well to slip on our filter and give the weaker colors a strong boost. Changing sky conditions may even help urfurther. If we wait until the late afternoon, the light becomes much weaker. With a clear overhead sky reflecting a considerable amount of light, the contrast range is greatly reduced and we have a greater opportunity to take advantage of our low latitude of color film.

*Anso Color Film*  
*Ektachrome Processed*

## 24 HOUR SERVICE

Within 24 hours after arrival your color roll film is completely processed and on its way back to you!

**ANY SIZE ROLL PROCESSED ANSCO OR EKTACHROME \$1.00**

**20 Exposures, \$1.00 36 Exposures, \$2.00**  
**Mounted Free Upon Request**

Now! Quality custom color service by Eveready, one of the finest equipped color laboratories. Sensitometric controls, automatic consistent agitation, expert technicians all assure quality color—always!

## COLOR PRINTS

**from Any Size KODACHROME ANSCO or EKTACHROME**

|          |               |               |       |       |        |         |
|----------|---------------|---------------|-------|-------|--------|---------|
| Up to    | 2 1/2 x 3 1/4 | 3 1/4 x 4 1/4 | 4 x 5 | 5 x 7 | 8 x 10 | 11 x 14 |
| Contact  | .50           | .75           | 1.00  | 2.50  | 4.00   | 9.00    |
| Enlarged | .75           | 1.00          | 1.50  | 2.50  | 4.00   | 10.00   |

**EVEREADY COLOR LABORATORIES**  
Dept. 6-L, 49 Nassau Street, New York 7, N. Y.  
(Ent. 5 Liberty Pl.)

**Send M. O. or Check**

*We pay handling charges  
No C.O.D.'S,  
please!*

*Three-Day Service*  
*Eveready Quality Color Prints*

## DELTA

**For unusual services and equipment**

This BAYONET ADAPTER SET for Kine Exakta, is supplied with a full set of 3 extension tubes, 10mm, 20mm, 30mm in length which permit making 1/4:1, 1:1 and 1 1/2:1 photography.

Sturdily and beautifully built of aluminum, fully guaranteed to satisfy.



**\$17.50** complete

Priced . . . . .

We also have a complete line of EXTENSION TUBES for all cameras with removable lenses. Send for our complete listing. IT'S FREE!

**DELTA PHOTO SUPPLY** 690-D Third Ave. New York 17, N. Y.

## ENLARGEMENTS

35mm Film — Developed and Individually Enlarged to 3 1/2 x 4 1/2 on Kodabromide S.W. Glossy.

**8 Exp. ROLL FILM—**  
**Developed & Printed 30c**

**ALL FILM DEVELOPED FINE GRAIN**

Send for FREE Mailing Bag. Write us your Photo Needs!

**A LANN PHOTO LABS, BOX 5, BROOKLYN 28, N. Y.**

**36**  
for  
**\$1.25**

**FINECRAFT Color**  
1015 SIXTH AVE. N.Y. 18 N.Y.

From Any Size Transparency Up To 4x5

| Print Size  | 2 1/4 x 3 1/4 | 4 x 5 | 5 x 7 | 8 x 10 |
|-------------|---------------|-------|-------|--------|
| First Print | 50            | 1.00  | 2.00  | 3.50   |
| Duplicate   | 40            | .90   | 1.85  | 3.00   |

**NOW** - Fine quality color prints expertly processed by electronic controls in only 24 hours. All color prints made with the

**NEW IMPROVED PRINTON**

3 Day Service on Anco color film processing

120, 620, 35mm, 20 Exp \$100 per roll  
Kodachrome Film Processed \$150 per roll

**24 HOUR Service QUALITY COLOR PRINTS**

**New PHOTO ENLARGER**



**ONLY \$9.95**

**FEATURING:**

- 35mm ROLL FILM CARRIER
- CARRIER FOR ALL NEGATIVES UP TO 2 1/4 x 3 1/4
- PRECISION LENS • ADJ. EASEL

Now you, too, can make your darkroom complete with this new, fully-adjustable enlarger. This revolutionary product will enlarge up to eight times. You will be astonished to see how easily you can blow up your snaps to sharp, salon-type pictures. Contains features of darkroom enlargers which sell for many times the price. It comes complete and ready to use. Unique design permits easy storage. If you want to assemble it yourself, we'll send you a complete kit for \$7.95. Remit with order. Save C.O.D. charges. Postpaid anywhere in U.S.A.

**A. P. PRODUCTS** Dept. M-8, Norwood Ave.  
Deal, New Jersey

**ACTION PICTURES OF YOUR OUTFIT**



Now you can get the OFFICIAL War Combat Photos of your own Outfit! You name the Army or Marine division and campaign, or Navy or Coast Guard or Air Force assault. We'll send you the on-the-spot OFFICIAL U. S. Battle Photos of that action! Show family and friends how YOU looked in combat. Set of twenty 4"x5" your outfit's action photos only \$2.98. NOT A BOOK but genuine glossy photos. SATISFACTION GUARANTEED OR MONEY BACK. Send no money now. Just pay postman \$2.98 plus postage when you get your sets. Official War Pictures, Dept. V-6, Forest Hills, N. Y. Write today!

**PHOTOGRAPHER'S EMBLEM**



Actual size shown. Wear on coat lapel. Increase your opportunities for PLEASURE and PROFIT. Let people know that YOU are a PHOTOGRAPHER. Emblem has screw back. Pure Sterling Silver \$2.75. Pure Sterling Silver 24k. gold plated \$3.25. (Fed. tax incl.) We pay postage if remittance accompanies order. Postage extra on C.O.D.'s. Wear five days free; return for full refund if not delighted.

**STAR ALL-STATE CO.—Dept. M6**  
Box 63, Los Angeles 53, Calif.

### Out-of-Balance Skylight

Back in the days when I first tackled color film, one of my first objectives was to photograph a lovely lady I know, with light blond hair, gleaming white teeth and a very delicate complexion. I posed her against the north wall of a house in open shade to get rid of objectionable eye and chin shadows from the overhead sun. When I received the transparencies from the processing station, I was startled to notice strong bluish highlights in her hair, blue teeth and a complexion color neutralized by the excess blue. What I failed to realize then was that this north light may be soft and pleasing for modeling purposes, but it is strongly out-of-balance in blue—reflected from a north sky. Don't blame film processing. It is a condition of the light; an unbalanced color quality which the film recognized and which we ignored. But it is still there! In order to partially overcome this excess blue, the CC15 filter would be more effective.

The greatest danger in recognizing the true place of these filters in outdoor color photography lies in its negative aspect; we must never use them indiscriminately. Just as we must be careful when we use them indoors to compensate for excessive warm we use judicious choice in using them outdoors. These filters are not a cure-all for all problems of color photography, and it may be that some will mistakenly believe that they will automatically solve all their color problems. This they will not do. But this does not stop one from *experimenting within the effective horizons* of these filters in order to heighten their usefulness to us in attacking these ever-present color problems. No filter ever becomes a substitute for clear-headed thinking, and these are no exception. With a minimum of imagination and careful observance of the limitations and assets of these filters, the color photographer will discover many more situations wherein their usefulness to him will be greatly increased.

## COWBOYS AND INDIANS

(Continued from page 46)

scenes, better confine your action to three or four characters.

Keep in mind that this is a burlesque; but don't let the kids feel it. The burlesque part comes into play by the seriousness with which one child will land on another who refuses to take the whole thing seriously; by the fragmentary way in which the story though held together by your shooting script, still continually refreshes itself as the actors stray into a side issue of their own. If the kids play the shooting sequence "straight," that is the way they naturally would do it, it will be burlesque. But if they get the idea that you are making fun of them, they in turn, will make faces, grimace and point at each other and laugh.

When you get your lights and camera set up, you'll be thankful that you sent the rest of the cast home. Indoor scenes may include the holdup of the cattlemen's bank, a shot of the interior of the rustler's cabin or, if you want to continue the use of your ingenuity, small sets can be built in the basement.

Hold direction to a minimum. Once the action gets going you'll find that your voice will rarely be heard anyway. First, you should outline the proposed action in a few words, then tell the cast to go to it. They will remember for a couple of minutes perhaps, but from there on it's going to be everyone for himself, including you. When you see a bit of interesting action, film it. You may never get it reenacted, no matter how much coaching you do.

Even if this is going to be an action picture, a constant stream of it won't hold interest too long unless you throw in a few close-ups for variety. These may be captured during a running gun battle among the rocks or when the hero says "Better reach for the sky, podner!" And be sure to get the one in the manner of the modern cowboy who produces the inevitable guitar and strums a haunting

## WANTED COLOR TRANSPARENCIES

Sparkling color prints from your favorite transparencies.

3 1/2 x 3 1/2 each \$ .40  
4x5 each .65  
5x7 each 1.25  
8x10 each 2.50

30¢  
2 1/2 x 3 1/2

24 Hr. SERVICE

First Class to You



Color Rolls Developed ..... \$1.00 ea.

All Orders Minimum of \$1.00  
Remit Cash with Order (No COD's)  
Special Orders Welcome

**LIFE COLOR LABS**

204 Wash. Ave. Dept. M Albany 6, N. Y.

# SUNRAY

AMERICA'S BEST  
ENLARGER BUY

Send for Illustrated  
Literature

SOLD BY LEADING  
DEALERS EVERYWHERE

SUN RAY PHOTO CO. Inc.

295 Lafayette St.

New York, N. Y.



## ALBUMS and SCRAPBOOKS

Several attractive bindings.  
Acetate protected leaves  
lay flat when open. Sizes  
14"x11" and smaller. See at  
stores or write for catalog.

**GREATEST MOVIE EVER MADE**  
**ATOMIC FURY**

Blink atom bomb tests in thrilling Kodachrome  
8mm., 50 ft., \$6.50  
16mm., 100 ft., \$13.00 (Silent)  
83 Subject Catalog - 10c

ORDER DIRECT FROM  
World in Color Productions, Elmhurst, N. Y.



**Color SLIDES**

**Famous COLOR SLIDE SHE**

A masterpiece devotes of art rave over. Infinitely more than a picture. Difficult to explain. Wait until you see it...to prove we have most unusual slides, **only 40 cents.**

*Send Only 40¢ for 'SHE'*

**GLAMORVUE** New style...gives three dimensional life effect to all slides. **Unbelievable price, 49 cents.**

**"VISIONS THAT BREATHE"**

Four special slides of beautiful models. **Only, \$1.45...Two Sets, \$2.90.**

**ACTION PHOTOS**

Models of breath-snatching beauty captured in exciting action with speed cameras. Unequaled, inspirational studies for artist and photographer.

**PER SET (Six Photos) only \$1.00**  
Order five sets...get extra large Special Surprise Photo FREE!

**NOVELART** Box 1107, Hollywood, Calif.

## QUALITY FIRST

**DIRECT-COLOR PRINTS**

**45¢ AND UP**

PRINTONS

2 x (2 1/4 x 3 1/4) 60¢ Ea. 3 or more from same slide. Ordered at same time, 45¢  
3 x (3 1/4 x 4 1/4) \$1.00 Ea. 3 or more from same slide. Ordered at same time, 75¢  
5 x (5 x 7) \$2.50 Ea. 3 or more from same slide. Ordered at same time, \$2.00 each.

Ektechrome and Ansco Processing of Superb Quality Is Available From

**WRITE NOW**

**Carroll's for Color**

4522 W. PICO LOS ANGELES 6

There's no better gift for a camera fan than a subscription to Minicam Photography. One year (12 issues) for **\$2.50**. A two-year subscription for **\$4.00** saves you **\$2.00** over the newsstand price.

### MINICAM PHOTOGRAPHY

22 East 12th Street Cincinnati 10, Ohio

**SEE!** Real Indians Stalk Bear and Moose in "INDIAN HUNTERS"

Write for FREE 8-16mm illustrated Catalog Dept. E

**STERLING FILMS, Inc.**  
61 West 58 Street New York 19, N. Y.

western tune to the rancher's daughter while the sheriff and posse are out chasing the nasty rustlers.

Most youngsters in lieu of ammunition furnish their own sound effects complete with facial expressions. Some are priceless.

To get some order out of the chaos facing you, better sort out the cast. Inasmuch as this began as an opus of the old West, starring Junior—we'll let him play the part of "Fearless Roy." Others down the line will include: Rancher's Daughter, the Rancher, Cowboys (five or six), Indians (about same amount), and three or four "Outlaws", with one identified as the leader. In case your cast of young males seem a bit hostile to the presence of a girl in the cast (and most of them do at that age), the part of the rancher's daughter can be deleted without seriously affecting the action or the story.

Sample script might run something like this:

## DEATH TO THE OUTLAWS

(Final Shooting Script)

### SCENE 1

(Camera on tripod, panning): Action—Stagecoach rushing toward camera. Outlaws, wearing masks, in full chase. Rancher's daughter is passenger on stagecoach. Pan with action to about 20 feet (if you are fast), then grab camera and tripod and run for your life.

### SCENE 2

Holdup of stagecoach. (Medium close-up. Passengers alight and outlaws search victims for money and jewels. The jewel can be a golf ball wrapped in tissue paper. Rancher's daughter can be introduced by close-up. She threatens vengeance on the outlaws when "Fearless Roy" gets there.

### SCENE 3

Appearance of Fearless Roy. (Camera from low angle.) Dramatic entrance as he rides trusty steed over brow of hill. Move in for medium close-up as he pauses to discover the holdup. Pan to long shot as he dashes madly down hill toward scene—shooting as he rides. (Insert scene of panic among outlaws as they scatter.)



#### SCENE 4

Medium shot of rancher's daughter thanking Junior for saving her money and jewels. Stagecoach reloads for trip to ranch. Junior rides guard.

#### SCENE 5

All is peaceful. Junior can be seen singing to the accompaniment of his trusty guitar. The rancher's daughter listens in ecstasy. (In case rancher's daughter is delighted from cast, this scene can be changed to cowboys grouped around campfire.)

Suddenly their attention is attracted by Indians. They have captured the rancher and are taking him away to be burned at the stake. Close-ups show rancher's daughter in terrific tizzy begging Junior to go to the rescue. Junior discards guitar, mounts steed and gallops to battle the Indians.

#### SCENE 6

Running gun battle among the rocks. (The big scene.) Junior is joined by other cowboys that the rancher's daughter has thoughtfully rounded up. A battle royal ensues. Work in several close-ups, facial expressions, and Indians biting the dust. In the midst of the melee, Junior manages to rescue the rancher from the stake. Indians are finally dispersed with much commotion and loss of personnel.

#### SCENE 7

Battle over, the rancher's daughter rushes in to thank Junior for his fearless deeds. He bashfully admits that "twern't nothing, ma'am". Final fade.

With the last scene shot and film back from processing, editing might bring back your continuity. Appropriate titles and background music can be worked in. (See "There's Magic in Music," MINICAM, August 1947.) You can also add sound effects and with one of the wire recorders that can be obtained on the market these days, a variety of sounds and comment can be added—even to Juniors voice in appropriate spots.

And for the sake of keeping peace, don't cut out Mrs. Crane's little boy Joe just because his belt broke and his pants fell down right in the middle of a dramatic scene. Perhaps she won't mind if

## SAVE \$5.46

Only at **HABER & FINK**  
Can you get a BUY like this

**La Salle**  
ILLUMINATED  
SLIDE VIEWER  
FOR 2x2 SLIDES  
Thousands sold at  
REG. PRICE \$8.95

NOW  
WHILE  
THEY  
LAST

**\$3.49**  
Complete  
With  
Batteries

Plus Postage



#### FEATURES

- Perfect, overall illumination
- Tilt regulation for viewing comfort
- Black plastic casing with chrome tilting arms
- Uses standard size flashlight batteries

MAIL ORDERS ONLY—NO C.O.D.'s

## HABER & FINK

"One of America's Great Camera Stores"  
12 WARREN ST. NEW YORK 7

COLOR  
BLACK & WHITE

SEND YOUR  
Leica - Argus  
Univex - Mercury  
Film to

**35mm**

**DEVELOPIX**

Ultra Fine Grain Developed.  
Hardened and 3/4x4 1/2 glossy  
enlargements made.

**36 EXP. ROLL** **\$1.25**

20 exp. roll \$0.98  
65 exp. roll 2.80

COMPLETE PROCESSING  
SERVICE

**35mm Reloads 36 Exp. 45c, 20 Exp. 30**

**PROJECTION POSITIVES**

20 exp. roll 60c; 36 exp. roll 80c; 65 exp. roll \$1.50  
Remit with order — Save C.O.D. charges.

Send for Free Mailing Bag and New Price List

**DEVELOPIX**

P.O. BOX 146 MADISON SQ. STA. NEW YORK, N.Y.

#### CUSTOM COLOR PRINTS

From Ansco, Kodachrome, and Ektachrome

|  |                  |                |              |
|--|------------------|----------------|--------------|
| 2 1/4 x 3 1/4                                | ..... \$ .45     | 4 x 5 mounted  | ..... \$1.00 |
| 3 1/4 x 4 1/4                                | ..... .65        | 5 x 7 mounted  | ..... 2.00   |
| 3 1/4 x 4 1/4                                | mounted..... .75 | 8 x 10 mounted | ..... 3.50   |
| Ansco Color 35, 120 and 620 Developed \$1.00 |                  |                |              |

Fast Service

Send for Price List on 8mm and 16mm Color Prints

**HOUSE OF COLOR**

1108 Seal Way

Seal Beach, Calif.

LEARN THE PROFESSIONAL WAY

# ANTONELLI

## SCHOOL OF PHOTOGRAPHY

ESTABLISHED IN 1930

**BASIC • PORTRAIT  
COMMERCIAL • COLOR**

SEVERO ANTONELLI, DIRECTOR

APPROVED FOR VETERANS' TRAINING  
SEND FOR CATALOG

**429 WALNUT STREET  
PHILADELPHIA 6, PA.**

ANNEX AT TEN SIXTEEN-EIGHTEEN  
CHESTNUT STREET, PHILADELPHIA

*"Work and Service that Can't be Beat"*

**35 MM FILM DEVELOPED and \$1.25**

**36 ENLARGEMENTS 3 1/4 x 4 1/2**

20 Exp. 75c • 16 Exp. Split 60c  
**EMBOSSED GLAMOUR PRINTS**  
THEY'RE DATED  
One order will convince you of our superb quality, work and service. It's new and modern. Reprints 4c each.

**8 EXPOSURE ROLL DEVELOPED INCLUDING 16 PRINTS FOR 35c**

Practically a GIFT of one set of prints—for a single set of Century's Beautiful Finish is easily worth the price for which you get two sets. Credits for failures. Send money with rolls or write for FREE Mailers.

**2 COMPLETE SETS OF PRINTS**

**CENTURY PHOTO SERVICE, LaCrosse, Wis.**

*the Clegg*  
**DRY MOUNTING PRESS**

- 12 x 15 PLATEN
- PILOT LIGHT INDICATES MOUNTING TEMPERATURE
- WEIGHS ONLY 23 POUNDS
- ADJUSTABLE PRESSURE
- ALUMINUM CONSTRUCTION
- TACKING IRON INCLUDED



SENT POSTPAID NO C.O.D.'s  
**\$58**  
Satisfaction or money back.

**WAYNE CLEGG**  
480 PLATT STREET • LONG BEACH 5, CALIFORNIA

everyone laughs, but, if Joe will be upset about it, the chances are the other kids wouldn't care for it either.

If anything has survived the filming of this first exciting horse opera, by all means try and preserve it for the next one. You will have found that you enjoyed the filming as much as the kids did acting it out. Often the kids have ideas of their own about what constitutes a good western movie. If so, let them plan it themselves. In the end you'll get the same result—action and plenty of it. Where else can you get real blood on the screen for so little loss of your own?

THE END

### THE LIGHTER SIDE OF THE DARK ROOM

After a long session in a stuffy dark-room a group of shutterbugs may think in terms of refreshment. In a few hours of a spare evening you can prepare a serving tray which will surprise and perhaps startle your friends.

A carrier designed for 6 twelve-ounce bottles of soft drinks (preferably metal) is painted red (safe-light color). When the paint is dry an assortment of labels which can be purchased in booklet form at any photography shop is pasted at random on the outside of the carrier. The carrier will hold 6 ordinary 8 or 10-ounce glasses upon each of which is pasted a label of your choice. The labels and a narrow strip of tape approximately 1/8" around the edges are covered with clear varnish or clear nail polish. This will prevent their washing off almost indefinitely.



The fun of using this set when completed can be enhanced by a proper distribution of the glasses. For example, the fast drinker can be given the "short stop"; the bashful one the "first developer," and the blonde, if there is one in the crowd, the "bleach," etc., according to your whims. — Charles G. Mulligan.

## Exposure

(Continued from page 40)

when you are located inside a building and wish to take a picture of the view from an opening or window. Obviously, you cannot get an incident light reading, within the room, of the light that is illuminating your subject. Or you may be on the wrong side of a mountain and wish to take a panorama of a valley. These few times it will be necessary for you to employ an accessory known as a Photogrid\*, if you are using a Norwood meter. This device transforms the Norwood Director\* into a reflected light meter.

The Photodisk\* replaces the Photosphere\* when it is desired to duplicate lighting contrast. It is an important ac-

cessory in obtaining contrast or balance in lighting when copying, making portraits, or other work with artificial lighting. It is also convenient to use when balancing outdoor light by the use of reflectors or fill-in lights.

With color becoming the general rule in cinematography, and increasing its inroads into the field of black-and-white still photography, an incident light meter may soon be considered a "must." It solves a difficult problem in a simple way by measuring incident light—which, after all, is the light by which we are enabled to judge the beauty of the things around us.

\* Norwood Director, Photosphere, Photogrid, and Photodisk are manufactured by the American Bolex Company, Inc., 521 Fifth Avenue, New York 17, New York.

## CLASSIFIED ADVERTISING

**MINICAM PHOTOGRAPHY** has 111,963 net paid monthly circulation, including manufacturers, jobbers and dealers in the photographic industry, as well as well-known photographers, instructors and classes in photography, advanced amateurs, beginners and Technical Libraries of EVERY Army Air Base in America. These 111,963 readers are an influential market. Want Ads: 15 cents per word including name and address. Zone number free. Minimum 10 words, payable in advance. All ads restricted to agency type. Forms close May 10 for July 1948 issue.

### WANTED TO BUY

**WANTED**—Pin Up Pictures in Wholesale lots. State particulars. Bob's Book Shop, 138-30 Coolidge Ave., Jamaica 2, New York.

**SEND US your camera today.** Will send certified check by air mail immediately. Items held ten days for your approval of our price. Free estimates for photo equipment. "Cleveland's Camera Supermarket." Rothart and Reiman, 1900 E. 9th St., Cleveland, Ohio.

**URGENTLY needed:** Leica, Contax, Rolleiflex, Rolifilm, Reflex, Movie Camera, Projectors. Ace Camera Exchange, 136 E. 58th St., New York 22, N. Y.

### FOR SALE

**GLASSINE NEGOTAINERS.** cellophane negatons, negative filling cabinets, photo gummed labels, release forms, photo print and mount embossers, negative record forms, envelopes, stationery, supplies. Free catalog. Lutz, Box 5, Syracuse, N. Y.

**LATEST REVERE 8mm model 88 camera** and 85 500-watt projector, both like new, \$150.00. Strauss, 11802 Tuscora Ave., Cleveland 8, Ohio.

**FOR SALE**—Excel P-130, 16mm projector, 30x40 beaded screen in case. Both \$52.00. Charles Hyman, Rt. 2, Box 54, Lake Geneva, Wis.

**KODASCOPE 8-33, \$77.12.** (New) Cline Studios, 115 E. 8th St., Chattanooga, Tenn.

**GRAPHIC MINIATURE.** Ziess F.3.5 Compur Rapid, fully equipped, \$185. Graflex box, \$25. Levey, 735 Noble, Bronx 61, N. Y.

**GENUINE CHINESE art brushes.** Excellent for retouching and spotting. 45c each. Tom Toy, 573 Central Ave., Yonkers 4, N. Y.

### CAMERAS—PHOTO SUPPLIES—EQUIPMENT

**TRI-SCREEN DIFFUSER** for enlargers and cameras. Three adjustable features for controlled diffusion, contrast control and various pictorial effects. Price \$1.00. Satisfaction guaranteed or money back. See your dealer or write Photo-Mart, 365 E. 193 St., N. Y. C. 58.

**FILTER KITS—Polarizing Series V.** \$1.25; Series VI, \$1.50. Aero 2 or K 3 Wratten Series V, \$1.00; Series VI, \$1.25. Red, Green or Orange Gelatin Series V, 75c. Complete kit includes Filter Material, glass circles, mounting ring and retainer, mounting media and instructions. Paramount Products, 67-25A Juno St., Forest Hills, N. Y.

**PHOTOGRAPHY for Pleasure or Profit.** Learn at home. Practical basic training. Long established school. Write for booklet. American School of Photography, 1315 Michigan, Dept. 2127, Chicago 5.

**SEPIATONE** various papers, especially bromides with McKee's "Bromide toner." \$1.00 8-oz. bottle makes two gallon solution. Tones 1 gross 8x10's Direct. Guaranteed. Sulphur Products Co., Greensburg 12, Penna.

**SURPLUS FILM HANGERS.** 4x5, stainless steel, 37c each; check or money order. Tintype, Dept. 1, 8687 Melrose Ave., Hollywood 46, Calif.

**BUY DIRECT!** Cameras, Equipment. Save Dealer's Profit! New Directory 25c. "Camera," 126-A Lexington Ave., New York 16.

**USE 24x34 COLOR FILM** in your large Camera with Utilitee Adapters. 6/c each or \$1.25 for 6. At Dealers or Utilitee Photo Products, 653 North Broadway, Los Angeles 12, Calif.

**ROBOT SIZE 2x2 Cardboard Mounts.** Dozen assorted, 25c; 36, 60c. Gemounts, Dept. M, 5817 Sheridan, Detroit 13, Michigan.

**BUILD YOUR OWN ENLARGER.** Takes negatives up to 4"x5". Detailed plans one dollar. Emby Co., Birmingham 2, Michigan.

**CAMERAS, PROJECTORS.** Film Available. Lists Free. Selco, MP6, Danvers, Massachusetts.

**FREE DISCOUNT CATALOG.** Flatbush Camera Center, 66 Westminster Rd., Brooklyn, N. Y.

**TIME SWITCH**—Surplus. Full Scale, 80 seconds. 10A, 125V. New. \$1.25 postpaid. Landy, 4003 Tyler, Detroit 4, Michigan.

**SUPER IKONTA B.** F3.5 Tessar. Compur Rapid, Heiland Gun, ER Case. Gadget Bag, Hood, Filters, \$199.50; 34x5 1/2, Speed Graphic, 6 1/4" F6.3 B&L Zeiss Tessar, compound, 3 holders, FPA, case, \$99.50; Contaflex, F2 Sonnar, \$295.00; F1.5, \$369.50; Super Ikonta A Special, F3.5 Tessar, Heiland Gun, ER Case, \$149.50; 6.5x9 Bee-Bee, F2.9 Meyer, Compur, 3 holders, FPA, case, \$119.50; Wultur, 14 1/2, Coupled Rangefinder, F2.8 Tessar, Compur Rapid, \$139.50; Primarflex, F3.5 Tessar, Case, \$179.50; Stereo Realist, New, \$162.50; 45x107 Contessa Nettel Focal Plane Stereo, F4.5 Tessars, 6 holders, case, \$69.50; Korelle J, F2.8 Tessar, case, \$144.50; Pilot Folding Reflex, F2 Zeiss Biotar, Compur, \$129.50. Wells-Smith Camera Co. 15 E. Washington, Chicago 2, Ill.

**ARGUS C-3 FLASH FANS**—Equip your camera with set of Adapt-A-Flash Extenders and keep it in case for those flash shots. Template and drilling instructions for case furnished, \$1.10 including Federal Tax. For modeling light use our 3' Extension Cord, plugs into camera or Extenders, \$1.75, sent post-paid. No COD's, please. W. R. Terrill Co., Dept. M-6, 111 N Ave. 60, Los Angeles 42, Calif.

**A SPENCER DIFFUSER** gives you perfect control of diffusion with any enlarger. The world's largest selling diffuser. It must be good. Sells for only \$1.00 with money-back guarantee. See your dealer or write Spencer Company, Mount Vernon, New York.

**SOMETHING NEW**—The Handy Print Washer; sturdy, attractive. It agitates, separates, washes thoroughly. Add it to your darkroom equipment. \$2.25 post-paid. Money back if not satisfied. B. C. Hamilton, P. O. Box 618, Brookline 47, Mass.

**PHOTOGRAPHIC PAPER.** Kodak Azo F4, 5x7, 144 sheets, 75c. Dockle Smith, Spring City, Tenn.

**REFLEX OWNERS!**—Rolleiflex, Rolleicord, Argoflex, Ciroflex, etc., you need Flexhood. Add in focusing and composition. Extends focussing hood. \$1 postpaid and guaranteed. Spencer Company, Mount Vernon, New York.

# CLASSIFIED ADVERTISING

**SLIDE FANS**—New Focaliside gives you sharp focus in easy fashion. Fits all 2x2 projectors. Only 25c. Guaranteed. Spencer Company, Mount Vernon, New York.

**EXCELLENT CINE EXAKTA F2-8 Xenar.** Best offer. Dexter Sherwood, Box 98, Suffern, New York.

**EMULSIFLO:** avoid streaks, airbells, pin-holes; 150 applications, \$1. Leibson, 307 Sterling Street, Brooklyn 25, N. Y.

4x5 Type B Kodachrome Jan., 1948, \$3.50. 750 T12 projection bulbs 3 for \$9.95; 300 T10 \$1.50 ea.; used 400 ft. 16mm cans 6 for \$1.25; used 1200 ft. 16mm reels 6 for \$2.50; 100 ft. 16mm negative Super XX processing not included \$1.00; Arkay Zephyr 4x5 printers \$8.00. Free bargain list and Miami Tourist Guide Book. Jackson's Camera Store, 60 W. Flagler St., Miami, Fla.

**THARGE PARVOLA** 3.5 compur around glass focusing to 8". Takes full and half 127 roll film, packs and cut film. Complete with case \$135. Al Hauser, 20 Forest Ave., Fond du Lac, Wisconsin.

**FOR SPEED** Universe Pressman, 4x5 \$39.90. Reducing Backs, Printers. Skytower, Box 210-C, Chicago, Ill.

**TEST YOUR LENS** and other equipment in easy fashion with new Spencer Test Chart. Complete with master four-color chart, six supplementary charts, data sheets, \$1.98 postpaid. A darkroom necessity. At your dealer or write Spencer Company, Mount Vernon, New York.

## DEVELOPING-PRINTING-RETOUCHING

**NEGATIVES RETOUCHEE** by experienced Hollywood retoucher. Guaranteed salon quality. Postages free. 4x4 hour service. Sizes: 3x5, 3x5c; 4x5, 35c; 5x7, 50c. Not a retouching school. Winton Retoucher, 759 McMakin Ave., Cincinnati 32, Ohio.

**FINE ENLARGEMENTS.** D. W. Glass or Mattie 5x7, 4 for \$1.00; 8x10, 3 for \$1.00. Prompt Return. White Photo Service, P. O. Box 21, Woodside, L. I., N. Y.

**24-HOUR EKTACHROME SERVICE.** Expertly processed in modern air conditioned plant. Roll \$1.00, 24x34, 35c; 34x44, 4x5, 45c. Coloren Laboratories, 247 Capitol Avenue, Atlanta, Georgia.

**ENLARGED NEGATIVE** from 35mm color slide or 16mm frame, 50c. 5x7 enlargement, 25c; 8x10, 50c. Minimum order \$1. Moore, Box 193, Greenbelt, Maryland.

**ART FANS!** Now—Try oil painting your favorite art print or one of our beauties on genuine artist's stretched canvas 10x12—\$4.50 and up. Negative charge if print sent—\$1.00. Art motion picture film developed—100 ft. 16mm—\$1.75—25 8/8—\$1.00. Color art rolls developed—\$2.00. Ansco or Ektachrome cut film up to and including 4x5, developed. 50c each. Minimum order 1.00. Fuller Photo Co., 44 Fuller St., Everett 49, Mass.

**DELUXE 35mm. FINISHING!** 36 exposures super fine-grained processed. 36 big sparkling 5x7 glossy enlargements \$3.00, postpaid! Overnight service! Edney Studios, Itasca, Texas.

**COLOR PRINTS** and enlargements from Transparencies 35mm to 4x5, 2x4 3/4 White Border 50c; 4x5 in folder 98c; 5x7 in Deluxe Folder \$1.98. 8x10 in Deluxe Folder \$2.98. Ansco Color Ektachrome 120 or 350 roll developed \$1.00. 24 Hour Service. C. O. O. D. Please, Multicolor Laboratory, Box 44 Ames Avenue Station, Omaha 11, Nebraska.

**NO MASS PRODUCTION.** Fine grain developing only with overexposure prints for the discriminating amateur. 35mm 36 exp. \$2.00. 20 exp. \$1.50. All 12 exp. rolls \$1.00. All 8 exp. 75c. Lost your negative, picture copied \$1.25. Custom enlargement 5x7 45c; 8x10 60c. Dealer inquiry invited also on regular finishing. Photo Craft Shop, Box 41, Yellow Springs, Ohio.

**ENLARGEMENTS** made from your negatives. 5x7 25c; 8x10 50c. 8x10 enlarged and oil colored, \$2.00. Negatives retouched only where needed. All enlargements made on double weight paper. M. Camarena, 1124 Jackson St., Gary, Ind.

**SPECIALIZING** 5x7 professional enlargements. Finest doubleweight, cropped; 2 for 25c. Jerome Printing Service, 1969 Jerome, New York 53.

**ENLARGEMENTS** deluxe from negatives. 5x7, 25c; 8x10, 50c. Hi-Grade Photo Service, Box 512, Haverhill, Mass.

**ENLARGEMENTS** from negatives. Cropped on matt paper, 5x7, 25c; 8x10 50c. Work leaves our lab within 12 hours after received. D&J Photo Service, 173 Jackson Street, Lawrence, Mass.

**NO NEGATIVE???** Send picture and \$1.00 for new negative with enlarged print to Curcio Photo, 1187 Jerome Ave., New York, N. Y.

## CAMERA REPAIRING

**48 HOUR SERVICE.** Leica, Kodak, Contax, all foreign and domestic models. Meters, range finders, synchronizers adjusted, bellows installed. Everything photographic skillfully repaired. All work absolutely guaranteed. Camera Research & Repair, 949 E. 103rd St., Los Angeles 2, Calif.

**GUARANTEED REPAIRS** on all foreign and domestic cameras, shutters, lenses, synchronizers and range finders. Estimates given. 48-hour service. Petrov Photographic Technical Service, Fifth Floor, Atlantic Building, 930 17th St., N.W., Washington 4, D. C.

**LENSES.** Camera, Binocular, etc., duplicated, re-surfaced and re-centered. Prompt service. Workmanship guaranteed. Send lenses for estimates. Good Lens Service, 26 Franklin Ave., Hillcrest, Binghamton, N. Y.

**PRECISION 48 hour camera repair** service. Any make—any type, foreign and domestic. Work guaranteed, cameras insured. Immediate estimate. Ferguson's Camera Repair Laboratory, 1858 E. Colorado St., Pasadena 8, Calif.

**CAMERAS REPAIRED**—Specialists on miniatures; 25 years experience. George W. Moyle, 5 Reekman St., N. Y. 7.

**BECOME AN EXPERT** camera repair man! There's a definite need for expert camera repair men. Prepare now for a profitable career. Study with the finest equipment in the country. Learn the mechanics and repair of all cameras and equipment, both foreign and domestic. This is the only photography school in the country offering a fully accredited course in Camera Mechanics and Repair. Write for free brochure to Progressive School of Photography, 217 Park St., New Haven 11, Conn.

**GUARANTEED REPAIRS** of all cameras and photographic equipment, foreign or domestic. 48-hour service on Ulster 202. Mack's Camera Craft, 2845 NE Sandy Blvd., Portland 12, Oregon.

## FILM

**35MM BULK FILM BARGAIN**—100' roll any Ansco or Eastman emulsion, money-back guaranteed war-surplus stock, \$7.43 value only \$1.75 per roll plus 20c postage. (Quir prices on request). Daylight Bulk Film Loader, value \$6.62, only \$4.80 plus 20c postage. Combination offer, 100' roll any emulsion and Loader together, only \$6.20 plus 30c postage. Write for free current News Letter listing hundreds more. Sterling-Howard, Dept. M-86, 1500 Monterey Ave., New York 57, N. Y.

**GUARANTEED** fresh anti-halo outdoor movie film! Weston 121 Daylight loading! Processing free! Three spools double 8mm, \$3.45! Six single 8mm for \$4.60! Postpaid! Catalog! Ego-S, 47th Holly, Kansas City 2, Missouri.

**35mm FILM**, 4 reloads \$1.00, 36 exposures. Plus X, Super XX, Guaranteed Best Service. Kennore Film Supply Co., 2018 Fillmore Ave., Buffalo 14, N. Y.

**GUARANTEED FILM.** Weston 50. Free processing, 25 ft. double 8mm, \$1.45; 100 ft. 16mm, \$3.45. Warranted satisfactory. MK Photo, 451 Continental, Detroit 14, Michigan.

**BARGAIN** on popular make 8mm film. 50 Weston, 3 rolls for \$4.25. Free catalog on Art Films. Discount Film Service, 1186 Broadway, New York.

**SURPLUS 16MM EASTMAN** super X on 50' cores, 50c postpaid! 12 rolls \$5.00! Out-dated but tested and guaranteed! 100' camera spools, 25c, postpaid! Processing, 75c. Filmcraft, 47th Holly, Kansas City 2, Missouri.

**WHY BUY OR RENT FILMS.** Swap the ones you are tired of with us. War, Cartoons, Art, Features 8mm or 16mm. Send \$1.00 only with each film that you want to swap. Any footage. Film Swap, Box 192, Kensington, Conn.

**KODAK 16mm** 50 ft. magazines Super X, outdated but guaranteed, \$3.25 each 5 for \$11.00 including processing. Art movies of beautiful models 100 ft. 16mm \$5.40, 100 ft. 8mm \$5.15. Send for list. Camera Place, 3707 Eastern Ave., R. Baltimore 24, Maryland.

**CAMERA FANS**—Eastman, Ansco; roll, sheet, pack, movie film. Lists 25c. Allan's, 16516 Detroit Ave., Lakewood 7, Ohio.

**DEALERS** Eastman Ansco film. Alan Film Service, 16516 Detroit Ave., Lakewood 7, Ohio.

**50 FT. 16MM** magazine film and processing, \$2.25. 16mm duplicating and titling. Se ft. DE Photo, D2, 648 Helen, Detroit 7, Michigan.

**35MM FANS**—Be Wise—Economic film—any emulsion—guaranteed fresh! 18 exposures each—6 for only a dollar postpaid!! Get your entire summer supply now at this amazingly low price! We reserve right to substitute. Routh's, 11409 Street, Wilson, N. Y.

## MOVIES AND EQUIPMENT—SLIDES—PHOTOS

**RARE 8-16MM** silent, sound films. International, 2120 Strauss, Brooklyn, N. Y.

**GEOLOGIC & SCENIC COLOR SLIDES** for Educational Entertainment. Catalog Free—Heald-Robinson, Dept. 5, 2202 N. Santa Anita, Altadena, Calif.

**KODACHROME SLIDES** of wild flowers, butterflies, landscapes, Germany. Free lists. Allen's Photo Studio, 2715 Beverly Drive, Gary, Indiana.

**HOME MOVIES**—New catalog 15c. with projection sample "Allure," \$1.00. Natural color slides—views, art, glamour—lists 3c, with sample, 35c. Gallo-way Films, 3008 5th St., S. E. Washington 20, D. C.

**ART STUDIES** of beautiful models. Sample 50c, set of 3 for \$1.00. P.O. Box 2011, Phoenix, Arizona.

**CUSTOM NEGATIVES, KODACHROME SLIDES.** \$1.00. Three for \$2.00. State type of model, pose desired. Customfinish, Box 1702, Rochester 3, New York.

**HOLLYWOOD films!** Kodachrome sample, \$1.00 (refunded). Catalogs 10c (refunded). Exchange your films! Send full reel and \$1.00. Stone, Luenburg 11, Mass.

**FLORIDA IN KODACHROME.** Over 5,000 slide subjects. Send \$5.00 for two samples and catalog. Pasco Roberts Studios, Box 728M, St. Petersburg, Fla.

**POORMAN, Schuykill Haven, Penna.** 1 World headquarters for savings on latest movies, equipment! Sound film exchanges! Catalog sample, dime!

**ART SLIDES.** 5 for \$2.00. Art Negatives, 5 for \$1.00. New Model Each Month! M-O-M, 7424 Sunset, Hollywood 46, Calif.

**SELECTED** Glamour Films, Photos, slides from leading Hollywood Producers. Samples 10c. Thomas Productions, 2705 West Avenue 34, Los Angeles 41, California.

# CLASSIFIED ADVERTISING

**PROJECTION SLIDES** in Kodak readymounts made from your negatives of photographs. Any size 35mm to 5x7. From negatives 10c each. From Photographs \$1.75 a dozen. We specialize in making slides from old photographs. Recapture those happy days of long ago. Large selection black and white. Mounted Southwestern Slides. National Parks, Rodeos, Indian Life, Switzerland, etc. 20 for \$1.20. Samples, lists, 25c. Rogers Studio, Box 134, San Diego 5, California.

**BEAUTIFUL** Kodachrome slide and Lists, 25c. Slide Supply Service, 3111 West Tuscarawas, Canton, Ohio.

**NEW CESAIREAN DELIVERY**—Latest Hospital Photography now available, 400 ft. Kodachrome, B&W 8mm and 16mm. Medical Research Film Library, Dept. D, 1569 Broadway, Brooklyn 7, N. Y.

**BEAUTIFUL** 2x2 Color Slides of Western States and Canada, \$3.75 per doz., \$2.00 for 6. Send 30c for sample and list. Vista Bonita Slide Services, Box 102, Alhambra, Calif.

**PLENTY** IS WHAT you save in this new film club. Send stamp for details on becoming a member. Bonnie's Film Club, 422 Haven Ave., Hamilton 5, Ohio.

**YELLOWSTONE IN COLOR.** Six selected 2x2 slides \$2.00. John Attebery, Morrisville, Illinois.

**COLOR SLIDES**—Travel, nature, etc. List, sample, 30c. Kelly M. Choda, Los Alamos, New Mexico.

**PRINTS** from your movie films? Yes. Send a small piece (Color, Black and White) and one dollar to get enlarged negative and 2 enlargements. Curio Photo, 1187 Jerome Ave., New York City.

**ORIGINAL KODACHROMES** (not duplicates) from collection famous Army photographer. Closing out, 3 for \$1. Send for list. Newcomb, Box 21, Ashville, North Carolina.

**BEAUTIFUL** Maine Coast Kodachrome Slides, five for \$2.00. MainePhotos, Box 1622-D, Portland, Maine.

**FILM LISTS GALORE!** 10c, no more! R&C Film Service, 561 Michigan, Detroit 26, Michigan.

**KODACHROME SLIDES** ON APPROVAL. Over 500 subjects. Yellowstone, Grand Canyon, Tetons, etc. Douglas Whiteside, Yosemite, Calif.

**DOUBLEKROME.** The premier of a new and colorful lantern slide. Only a limited number processed. Scenes of picturesque England. Set of 5 for \$1.00. While they last. Grafc-Slide Co., P.O. Box 513, Evansville, Indiana.

**FREE LISTS.** Exclusive Home Movies. Projectors, Cameras, Special Discounts. Home Pix, 1674 Broadway, New York 19, N. Y.

**THEY'RE TERRIFIC.** exciting. 8-16mm films. Illustrated list dime. Charles Hyman, Box 54, Lake Geneva, Wis.

**COLOR SLIDES** of rarely visited Hooversweep National Monument. Strange, deserted cities of an ancient civilization. Set of 6, \$1.75. Lindy, Box 63, Dove Creek, Colorado.

**COLOR ART SLIDES**—new and different. Gorgeous models for the artist. Complete lighting and technical charts on each slide for the photographer. Five sets available. Details free. Sample set of three, \$1.00. Photo-Arts, 609 East Main, Richmond, Kentucky.

**PACIFIC-NORTHWEST** in brilliant 2"x2" Kodachrome slides, 3 for \$1.00, 10 for \$3.00. "Slide Sales Service," P. O. Box 255, Anacortes, Washington.

**GENUINE** Art Photos. Original, unretouched. In glamorous poses by top-notch professional artists models. Send \$1.00 and receive 24 gorgeous pocket-size photos postpaid. Special offer, six sets (144 photos) \$5.00. All different. Irving Klav, Dept. 22-A, 212 East 14 St., New York 3, N. Y.

**PASADENA 1948 TOURNAMENT** of roses. The World's Most Beautiful Spectacle. Filmed on Ansco Color Film, 310 ft. 16mm Kodachrome Silent Copy, \$45.00, 155 ft. 8mm Kodachrome Copy, \$30.00. (In California, add Sales Taxes). Stewart Drew, 1216 South Glendale Ave., Glendale 5, California. Sent postpaid upon receipt of money order.

**FOUR DOLLARS** brings you ten new, interesting art colorslides. COD prepaid. Nulslides, 6977 Sunnydell Trail, Hollywood 28, Calif.

**"SEE"**—Famous Color Slide, Indescribable; only 40c. Special Listing. Extraordinary Slides and Photos. Novel Art, Dept. A, Box 1107, Hollywood, Calif.

**FILM-Movetone** is back. It's Weston 12 nonhalation. Free processing 100 ft. 16mm \$3.25, 25 ft. double 8mm \$1.50. Bulk film without processing 100 ft. 16mm \$2.25, double 8mm \$2.45. Free circulars. Fromader General, Davenport 9, Iowa.

**BEAUTIFUL HOLLYWOOD MODELS.** 5 full color art slides \$2.00. New set monthly. Order set No. 1, 2 or 3 now. Glamour Pix, Box 535-M, West Branch, Los Angeles, Calif.

**8 & 16MM** Kodachrome Duplicates. 11c a ft. Mail orders accepted. 50 ft. minimum. Hollywood 16MM Color, 6960 Hollywood Blvd., Hollywood 28, Calif.

**ORIGINAL KODACHROME** slides. California roses, 3 for \$1.00. Ed Drews, 3807 Wisconsin Street, Los Angeles 37, Calif.

## MAGAZINES—PERIODICALS

**MAGAZINES** (back dated)—Foreign domestic arts, books, booklets, subscriptions, sign-up, etc. Catalog, 10c. (Refunded.) Cicerone's, 863 First Ave., New York 17, N. Y.

## INSTRUCTION

**"PHOTOGRAPHING THE FIGURE"**—Work sheets on pictorial and portrait nudes. Explains Anatomy for artists; lighting; composition. Illustrated. Only \$2.00 postpaid—drop card for C.O.D. Money-back guarantee! Bunnell Studio School, Box 1966, Richmond, California.

**MAKE** your own enlarger. Less than \$1.00 for parts. Easy instructions and plans, \$1.00. The B. Z. Enlarger-M, Box 2221, Terminal Annex, Los Angeles 5, California.

**START A CAREER** in motion pictures. Professional instruction. Learn Hollywood. Free Lance, Industrial and Educational film technique at home. Personal supervision. Enthusiastically endorsed by successful students. For a well paid career or paying hobby write for free catalog. Motion Picture Institute, Birmingham 2, Michigan.

**OIL COLORING** photographs can be a fascinating hobby or profitable sideline for those with artistic talent. Learn at home. Easy simplified method. Send for free booklet. National Photo Coloring School, 1315 Michigan, Dept. 2121, Chicago 5, Illinois.

**SECRETS** of professional photography illustrated. Work-sheets, practical tested methods. Operate at home for studio. Long list of satisfied users. Only \$2.35 postpaid—drop card for C.O.D. Money-back guarantee! Bunnell Studio School, Box 1966, Richmond, California.

## BUSINESS OPPORTUNITIES

**MAKE BIG MONEY** selling our new sensational films. Send for sample movie and free wholesale price list: \$10.00 16mm sound; \$7.50 16mm silent; \$2.50 8mm. Standard Pictures Corp., Universal City, Calif. Dept. F.

**CAMERA SHOP** AND STUDIO. Sickness compels sale. Camera shop has modern blond fixtures, fluorescent lights, clean stock. Grossed \$20,000 last year. Should gross \$30,000 to \$40,000 this year. On state route in good residential district of Cleveland, Ohio. Store 18x55. Full basement. Price \$18,000. Boulevard Camera Shoppe, 14920 Lake Shore Blvd., Cleveland 10.

**WOULD YOU PAY 3%—first \$350 made?** Color-illustrated book "505 Odd, Successful Enterprises." Free. Work home. Expect something odd! Pacific-61, Oceanside, Calif.

**EARN \$100 WEEK** in Portraiture. Guaranteed Plan Only \$1.00. Meloon Enterprises, 308 S. Grand, Independence, Missouri.

## MODELS, LIVING

**PHOTOS** of LIVING MODELS available to pose personally for reputable, responsible commercial and amateur photographers and artists. Models preview, 1948 national models' catalog contains illustrations of photos of more than 150 attractive girl models, complete lists and addresses of more than 100 U. S. and Canadian models' organizations, details of national models' photo-publicity service. For big 48-page special issue of Models Preview, send one dollar to Photopublishers, Winnetka, Illinois.

## BOOKS—EDUCATIONAL

**BOOKS**, all subjects, promptly supplied. Argus Book Service, Box 258-E, Watertown, Conn.

## WHOLESALE DIRECTORY

**YOU SAVE DEALER'S PROFIT!** Nationally known articles at rock-bottom wholesale prices. New Directory just off the press includes cameras, equipment, etc. Get your copy now. Rush 25c to Harvey, Dept. M, 166 Old River Road, Wilmette, Ill.

## MISCELLANEOUS

**PRESS CARD** available at last to Free-lance Photographers—Now get those "On-the-Spot" pictures, just what is needed to pass Police and Fire lines. Send \$1.00 for your "Credential" and "Windshield Pass" to Free-lance Photographer Service, R. 4, Box 2521, Bremerton, Washington.

**CONSERVATIVE OIL PAINTINGS** made from life, photographs or illustrations. Miniatures a specialty. G. V. Tiemann, Artist, 2047 Bissell St., Chicago 14, Ill.

**YOU CAN ENTERTAIN** with Comic Trick Chalk Stunts. Catalog 10c. Balda Chalk Talks, Oshkosh, Wis.

**117 DIFFERENT WORLDWIDE** Stamps 10c. 1000, \$2.26. Harris, Bellevue, Florida.

**WEDDING CANDID** instruction booklet—Establishing yourself, getting appointments, shooting, processing, selling. \$2.00. Exclusive personalized wedding albums—gold stamped to order, names and photographer's imprint. Inquiries invited. Photomatches—make your own. Brush-on striking surface, complete instructions, sample match-book, 60c. Amateur's money-maker. Crestwood Photo, Box 7052, Kansas City 2, Missouri.

**ART PHOTO BOOK MATCHES**—Be the "lite" of the party with these unusual matches. A crystal clear photo of a gorgeous model used as the cover of each book of matches. Box of twenty (many different poses) for \$1.98. Satisfaction guaranteed. Ace Products Company, Box 681, Kansas City, Missouri.

**PHOTOGRAPHIC MATCH COVERS**—Make your own. Send \$1.00 for prepared striking surface. Will make 500 matches. Just moisten, gummed and apply. Fotomatch Co., 238 So. Pacific, Glendale 4, Calif.

**PHOTOGRAPHER'S PRINTED FORMS.** Prices per hundred: Wedding photograph order blanks \$2.00, Receipts \$1.00, Model Agreements \$1.00, Model Contracts (and description) \$2.00, Photographic releases \$1.00. Distinctive business cards—samples free. Distinctive Box 8, Gravesend, Brooklyn 23, N. Y.

**BEAUTIFUL OIL PAINTINGS** made from your favorite slides or B & W prints. Portraits also. Reasonable rates. Send slides today. Free catalog. No obligation. Irwin Studio, 322 Rutherford Ave., Trenton 2, N. J.



# SALONS AND EXHIBITS

★ FOLLOWS P. S. A. RECOMMENDED PRACTICES

| Closing Date                         | Name of Salon  | For Entry Blank, Write to  | Number of Prints and Entry Fee      |                      | Dates Open to Public  |
|--------------------------------------|--|--|-------------------------------------|----------------------|---|
| Exhibit to see                       | ★1948 Baltimore International Salon of Photography.                          |  |                                     |                      | Museum of Art, Baltimore, Md., June 4-30  |
| Exhibit to see                       | ★Twelfth Virginia Photographic Salon.  |  |                                     |                      | Valentine Museum, Richmond, Va., June 13-30   |
| June 1                               | ★First Dixie National Salon of Photography.                                  | James K. Jobson, Chairman, 108 Tenth St., N. E., Atlanta, Ga.                                    | 4 mono-chrome                       | \$1.00               | Carnegie Library, Atlanta, Ga., July 1-15   |
| June 9                               | Memphis Pictorialists 11th Annual Salon.                                     | H. C. Wilson, Memphis Photo Supply Co., 83 Madison Ave., Memphis 1, Tenn.                        | 4                                   | \$1.00               | Brook Art Gallery, Overton Park, Memphis, Tenn., July   |
| June 10                              | ★Tenth National Finger Lakes Salon of Photography.                           | Cayuga Museum of History and Art, 203 Genesee St., Auburn, N. Y.                                 | 4                                   | \$1.00               | Cayuga Museum of History and Art, Auburn, N. Y., June 12-July 10  |
| June 23                              | ★Fifth International Salon of The Litz Springs Camera Club.                  | David E. Miller, Salon Director, 37 E. Lincoln Ave., Litzitz, Pa.                                | 4                                   | \$1.00               | R. M. Spacht Furniture Store Litzitz, Pa., July 4-11  |
| July 3                               | ★Fourth Salt Lake International Color Slide Exhibit.                         | Dr. C. E. Barrett, Salon Chairman, Box 246, Salt Lake City, Utah.                                | 4                                   | \$1.00               | State Capitol, Salt Lake City, Utah, July 16-24   |
| July 17                              | Falmouth Camera Club's Fourth International Exhibition.                      | C. E. Brooking, Secretary, "Cotswold", Trescobegs Road, Falmouth, Cornwall, England.             | 4                                   | \$1.00               | Y.M.C.A., Bank House, Falmouth, Cornwall, England, Aug. 4-14  |
| July 24                              | Royal Photographic Society's 93rd Annual Exhibition.                         | Secretary, The Royal Photographic Society, 16 Princes Gate, London, S. W. 7.                     | 4 prints and/or color slides        | None                 | 16 Princes Gate, London, Sept. 9-Oct. 30  |
| July 28 (Pictorial) August 7 (Color) | ★Ninth Annual North American Salon of Photography.                           | Grant Dugains, State Agricultural Society, P. O. Box 2036, Sacramento 9, Calif.                  | 4 prints and/or slides              | \$1.00 each section  | Fine Arts Bldg., California State Fair, Sacramento, Calif., Sept. 2-12  |
| August 4                             | Thirty-ninth Annual International Exhibition of London Salon of Photography. | The Hon. Secretary, London Salon of Photography, 26-27, Conduit St., New Bond St., London, W. 1. | 6                                   | 5s.                  | Galleries of The Royal Society of Painters in Water Colours, 26-27, Conduit St., New Bond St., London, W. 1., Sept. 11-Oct. 9 |
| September 3                          | Thirteenth Annual Western Ontario International Salon of Photography.        | A. E. Adams, Salon Chairman, 923 Maitland St., London, Ontario, Canada.                          | 4 prints, any medium                | \$1.00 each class    | London Camera Club, 212½ Dundas St., London, Ont., Canada, Sept. 21-Oct. 5  |
| September 7                          | ★Northwest International Salon of Photography.                               | Western Washington Fair Association, Puyallup, Wash.   | 4                                   | \$1.00               | Western Washington Fair, Puyallup, Wash., Sept. 18-26   |
| September 8                          | ★Third Columbus International Exhibition of Photography.                     | Fred H. Braunlin, Chairman, 456 Elsmere St., Columbus 6, Ohio.                                   | 4 prints and/or slides, 3 divisions | \$1.00 each division | Columbus Gallery of Fine Arts, Columbus, Ohio, Sept. 15-Oct. 5  |
| September 25                         | ★Fifth Chicago International Color Slide Exhibit.                            | Philip R. Kephart, Chairman, 328 Franklin Ave., River Forest, Ill.                               | 4 color slides                      | \$1.00               | Chicago Historical Society, Chicago, Ill., Oct. 12-15   |

When writing for Entry Blanks, mention MINICAM



Photograph  
America...



Protect your Skill . . .

WITH *Defender* FILMS  
TRADE MARK

PAPERS  
CHEMICALS

- "Defender" Film provides the latitude, the balanced color sensitivity, the dependability that make every shot count.
- "Defender" Chemical Preparations are made to match the qualities of the film and paper, to bring out the best in each, to protect those qualities your skill has captured.
- "Defender" Papers, with their long tonal range, the clarity of their whites and the richness of the blacks, bring to life again the full beauty of the scene you saw when you snapped the shutter.

America has so many things to please the camera's eye. It has its shining mountains, its busy cities, and its rich, peaceful fields. Whatever you want to photograph, it is here in plenty. . . . No matter what your choice of picture, you will want to make it a "Defender" picture all the way.

*Ask your "Defender" dealer for all three. They are packaged in the distinctive blue and yellow packages.*



BETTER THINGS FOR BETTER LIVING  
... THROUGH CHEMISTRY

E. I. DU PONT DE NEMOURS & COMPANY (INC.)  
Photo Products Department, Wilmington 98, Delaware  
In Canada: Canadian Industries, Ltd., 912 Birks Bldg., Montreal, P.Q.

TUNE IN "CAVALCADE OF AMERICA" EVERY MONDAY, 8 P. M., E. T.

Home movies cost less than most folks think



### ...with a Cine-Kodak Camera

Thousands of families are "shooting on a shoe-string" . . . making marvelous movies . . . with CINE-KODAK EIGHT-25 CAMERA. The camera itself is priced at but \$55, plus tax. And as for film cost, the Eight-25, like all Cine-Kodak Eight cameras, "stretches" a little film a long way. A single low-cost roll captures the high spots of a whole weekend.



The Eight-25 has  $f/2.7$  Lumenized lens; fixed focus; exposure guide.

See this most convenient of all movie cameras at your Kodak dealer's.  
(Prices subject to change without notice)

### The Supply Situation

Though Kodak is making more cameras, projectors, and film than ever before, the demand is greater, too. Keep in touch with your Kodak dealer.

**EASTMAN KODAK COMPANY**  
ROCHESTER 4, N. Y.

"Kodak" is a trade-mark



**Cine-Kodak Film** starts as low as \$2.50 per roll, including processing! Tax extra.



**Kodascope Eight-33** with  $f/2$  lens and 500-watt lamp, a grand little projector for home shows. \$78.



**Kodascope Eight-90A Projector**—Latest, finest. Superfast  $f/1.6$  lens and 750-watt lamp. With case—\$185.

**Kodak**

